DOCUMENT RESUME :

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TITLE Fall Department Head Report--Reporting Booklet 2.0 to

the Massachusetts Division of Occupational Education

CE 005 721

(Piscal Year Ending June 30, 1975) for

Metalworking.

INSTITUTION Management and Information System for Occupational

Education, Winchester, Mass.

SPONS AGENCY Massachusetts State Dept. of Education, Boston. Div.

of Occupational Education.

PUB DATE 30 Jun 75

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646-647; ED 072 225; ED 072 228; ED 072 303-304; CE 005 687-727; Instructions for completing the booklet

are available in CE 005 701

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Skills; *Management Information Systems; *Metal

Working Occupations; Program Design; Program

Evaluation; *Records (Forms); State Programs; Trade

and Industrial Education; *Vocational Education

IDENTIFIERS Census Data System; *Management Information System

Occupational Educa; MISOE; Terminal Performance

Objectives; TERMOBS

ABSTRACT

The reporting booklet is required for the Census Data System (CDS) of the Management Information System for Occupational Education (MISOE): it contains the reporting forms which collect data that describe program structure and job-entry skill outcomes expected of program completors in the individual occupational education area of metalworking. Utilization of instructional area is also determined. This booklet contains the terminal performance objectives (TERMOBS) for this program area. They are actually the forms by which the skills of program completors are reported by department heads. CDS, one of two major subsystems of the integrated management information system, was developed to provide occupational education managers with comprehensive data on which to base rational management decisions. Essentially, CDS contains descriptive information systematically structured in a manner which allows it to be used as a basis for sampling evaluative research studies. CDS collects and stores census data for all school systems offering occupational education programs, including all data formerly collected by the Annual Federal Report for Occupational Information, except followup data. (Author/AJ)

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Misoe Number	2	Due Date
Name of School System		System ID No.
Name of School	ı	School ID No.
Name of Preparer of Report	Title	Telephone No.

Name of Department or Instructional Area

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

FALL DEPARTMENT HEAD REPORT-REPORTING BOOKLET 2.0

to the

DIVISION OF OCCUPATIONAL EDUCATION (Fiscal Year Ending June 30, 1975)

for

METALWORKING

US DEPARTMENT OF HEALTH.
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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Before filing said statement, the superintendent shall submit it to the chairman of the school committee, who shall countersign it on oath, if, after examination, he finds it correct.

(General Laws Relating to Education 1970: Chapter 72, Sec. 2A, Item 4, and Sec. 3, Item 2)

I hereby certify that all the statements contained in this report are true to the best of my knowledge and belief, and that this is a true statement, made under the penalties of perjury.



THE COMMONWEALTH OF MASSACHUSETTS

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METALWORKING "

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Before filing said statement, the superintende man of the school committee, who shall counter amination, he finds it correct. (General Laws Relating to Education 1970: Cha Sec. 3, Item 2)	sign it om oath, if, after ex-
I hereby certify that all the statements conta the best of my knowledge and belief, and that under the penalties of perjury.	ined in this report are true to this is a true statement, made
(Date)	Superintendent of Schools
(Date)	Chairman of School Committee



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Table 2.1 Enrollment in Final Grade by Student Group & Terminal Objectives (TERMOB)

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1.	Grade									
2.	Student Croup Name and Number	101		10	2					
3.	USOE Code(s)									
4.	Level Code									
5.	Type Code			х						
6.	Session Code									
7.	Program Length (Years)	∢ 1 2	3 4	<1 1 2	3 4					
8.	Cooperative	Yes N	lo	Yes	No					
9.	Workstudy	Yes N	lo .	Yes	No					
10.	Exploratory	Yes	lo	Yes	No					
11.	Instructors and Teacher's Aides									
6	A. <u>Full Time</u> 6. Percentage of Time									
12.	Enroliment	Male	Female	Male Female						
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6.	Session Code								à			•		
7,	Program Length (Years)	< !	1 2	2 3	4		·<		1	2	3	4	ļ	- 1
8.	Cooperative	Yes		Yes No										
9.	Workstudy	Yes		No				Yes No						
10.	Exploratory	Yes		lio.		•		Yes	S		No		_	
9	Instructors and Teacher's Aides									To the state of th				
	A. Full Time													4
	3. Percentage of Time													
12.	Enroliment	Ма	le	F	emal	е		Mal	е		F	ema	le	

TERMOB Applicability

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Table 2.1 (Cont'd) Enrollment in Final Grade by Student Group

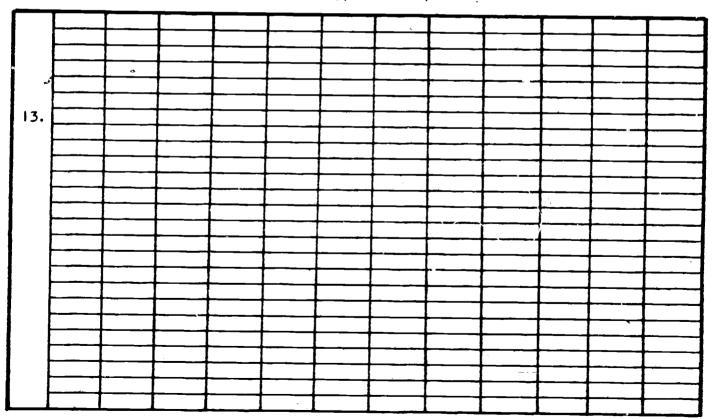
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9. Yes No Yes No Yes No	
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12. Male Female Male Female Male Fema	

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Table 2.1 Enrollment in Final Grade by Student Group & Terminal Objective (TERMOB)

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1.	Grade								
2.	Student Group Name and Number	٠	06	10					
3.	USOE Code(s)				•				
4.	Level Code								
5.	Type Code								
6.	Session Code								
7.	Program Length (Years)	<	2 3 4	<1 1	2 3 4				
8.	Cooperative	Yes	No	Yes	No '				
9.	Workstudy	Yes	No	Yes No					
10.	Exploratory	Yes	No	Yes	No				
11.	Instructors and Teacher's Aldes								
	A. Full Time								
B	. Percentage of Time								
12.	Enro! Iment	Male	Female	Male :	Female				

TERMOB Applicability

			 		 	
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	8.	Cooperative	Ye	es	No			Y	es	No		
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10.	Yes	No	Yes	No	Yes	No
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12.	Male	Female	Male	Female	Male	Female

TERMOB Applicability

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æ	Cooperative	Yes	<u></u>	ა დ }-	ON.	Yes	7c	Yes
9	Workstudy	Yes	No O	Yes	N _O	Yes	No	Yes
0	Explorator,	Yes	No	Yes	No	Yes	0	Yes
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	A. Full Time							-
	B. Percentage of Time							
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12.	Enrollment				12.7			

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Table 2.11 (Cont'd) Enrollment in Lower Grades by Student Group

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219 Table 2.11 Enrollment in Lower Grades by Student Group (Cont'd) 218 216 8 Student Group Name Session Code USOE Code(s) Level Code and Number Type Code 6 Grade ٠ و

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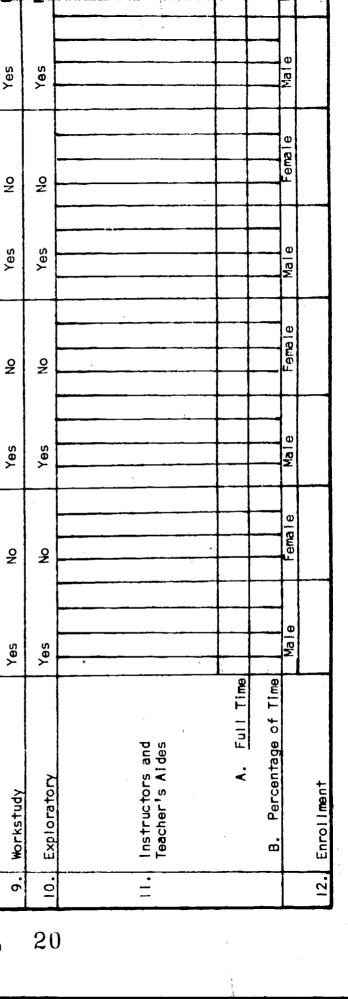
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Table 2.2 Utilization of Student Class Time: Final Grade

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Table 2.2 Utilization of Student Class Time (Cont'd): Final Grade

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fable 2.21 Utilization of Student Class Time: Lower Grade

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	3. USUE Code(s)								
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Table 2.21 (Cont'd) Utilization of Student Class Time: Lower Grade

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4	212				-						
	211		·				1				
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Lawer Grade Table 2.21 (Cont'd) Utilization of Student Class Time:

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-		Areas	7						,
	Total All Areas 8 (Lines 6 + 7)							í	
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	10. Schedule Variation	-						•	
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Table 2.3 Utilization of Departmental Instructional Area by Rooms

i.,	a.[]Weekly b.[]Alternating c.[]Variable	2.	a.[b.[<pre>] Semester Schedule Change] No Semester Schedule Change</pre>
	C· Variable			<u> </u>

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			WEEKL	Y OR SCHEDUL	E A	1	
1	2		3	P	4	····	5
Room	Day	Мо	rning	Afte	rnoon	E Ve	ening
	of the	7.00 =	m12:00N	12.00Nm	5:00 p.m.	6:00 p.m.	-11:00 p.m.
:40. 01	or me	Mo. of	No. of	No. of	No. of	No. of	No. of
Name	Week	Hrs.Used	Stud. Hrs.	Hrs. Used	Stud. Hrs.	Hrs. Used	St úd. Hrs.
IA	Mon.		·			·	
	Tues.				**		
	Wed. Thurs.						
	Fri.						
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2^	Mon. Tues.			 			
	Wed.						
ļ	Thurs.	1					
<u> </u>	Fri.						
LS C	Sat.						
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	ಗತ್ತೆ.						
	Thurs.	·					<u> </u>
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LJ C	3.31.		-				
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4 A	.Mon.						
	°Tues.						
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į.	Tues.	l	I	1	l		1



Room	Day	Мо	rning	Afte	rnoon	Eve	ning
No. or	of the		m12:00N		5:00 p.m.	6:00 p.m.	-11:00 p.m.
	1 .0	No. of	No. of	No. of	No. of	No. of	No. of Stud. Hrs.
Name	Week	Hrs.Used	Stud. Hrs.	Hrs. Used	Stud. Hrs.	Hrs. used	STUU. HIS.
1A	Mon.		÷				
	Tues.						
1	Wed.						
	Thurs.						
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2A	Mon.]	
1	Tues.						
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1.5.6	Fri.	ļ					
LS C	Sat.				 		
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1	wed.	4					
İ	Thurs.						
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4 A	Mon.						
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	Wed.		t		,		
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Ì	Fri.	· ·	 				
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Table 2.3 (Cont'd) Utilization of Departmental Instructional Area by Rooms

a.[]Weekly b.[]Alternating c.[]Variable	2. a. b.	<pre>[] Semester Schedule Change [] No Semester Schedule Chang</pre>
C. [] tollonie		

		. L _ Varia	au i e						
WEEKLY OR SCHEDULE B									
. 5	7.		8		9	1	0		
Room	Day	Мо	rn Ing	Afte	ernoon	Eve	ning		
No. or	of the		m12:00N		6:00 p.m.		-11:00 p.m.		
Name	Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.		
1 B	Mon.						· · · · · · · · · · · · · · · · · · ·		
	Tues. Wed.				·				
	Thurs. Fri.								
LS C	Sat.	<u> </u>		+					
TOTALS						-			
2 в	Mon. Tues. Wed. Thurs.								
LS C	Fri. Sat.			, P					
TOTALS									
3 B	Mon.								
	Tues. Wed.								
	Thurs.								
LS C	Sat.			+			ž.		
TOTALS									
4 8	Mon. Tues.								
	Wed. Thurs.								
LS C	Frl. Sat.								
TALS									
Wilded by ERIC B	Mon.	·							

Room	Day	Morning		Afternoon		Evening	
No. or	of the	7:00 a.n No. of	No. of	12:00N-6 No. of	12:00N-6:00 p.m. No. of No. of		-11:00 p.m. No. of
Name	Week	Hrs.Used			Stud. Hrs.	Hrs. Used	Stud. Hrs.
l B	Mon.						
	Tues.	ζ					
1.5	Wed. Thurs.	+ + +			· · · · · · · · · · · · · · · · · · ·		*
	Fri.						
LS C	Sat.						
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	Tues.				t.		
1 5	Wed. Thurs.	+	1				
	Fri.	1					
LS C	Sat.						
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	Tues.					3	
	Wed.					,	
1	Thurs.		-	 			
LS C	Sat.				٠		
TOTALS							
4 B	Mon.		1				
1 -	Tues.					·	
İ	Wed. Thurs.						
!	FrI.						
LS C	Sat.						
TOTALS	P	<i>3</i>		,			
5 B	Mon.						
	Tues.						
	Wed. Thurs.	 	ļ				
	Fri.						
LS C	Sat.					ļ	
TOTALS							

Table 2.3 (Contid) Utilization of Departmental Instructional Area by Room

		a. [] week b. [] Aite c. [] Vani	rnating able	2. a .!	a. [] Semest b. [] No Sem	ester Schedu	Te Change
			WEEK	LY OR SCHEDU	ULE A	4	
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Room	Day	Mo	rning	Afte	ernoon	Eve	ning
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Name	Week		Stud. Hrs.			Hrs. Used	
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}	Wea. Thurs.		1	 			
	Fri.		 	 			
LS C	Sat.						
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7.5	Mon. Tues.		 				<u> </u>
7A	Wed.	2			 		
	Thurs.						
	Fri.						
LS U	Sat.	-		 			!
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AB	Tues.				•		
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	Моп		•	4		·	
Ae	Tues.						
	Wed. Thurs.			j			
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11	12	···	13	· · · · · · · · · · · · · · · · · · ·	14		15		
Room	Day	Morning		Aft	ernoon	Evening			
No. or	of the		m12:00N	12:00N-	6:00 p.m.		-11:00 p.m.		
Name	Week	No. of Hrs.lised	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.		
. 1	Mon.						Andrews State Call to Justice the Assessment of Lorents		
DA .	Tues.								
:	Wed. Thurs.								
\	Fri.								
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	Wed. Thurs.								
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	Fri.								
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Table 2.3 (Confid) Utilization of Departmental Instructional Area by Room

		a. [] Weekly b. [] Alternating c. [] Variable	2.	a. [/] Semester Schedule Change b. [] No Semester Schedule Change
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16	17	,	18	•	19		20
Room	Day	₩o	rning	Aft	ernoon	Eve	ning
No. or	of the	7:00 a. Nc. of	m12:00N No. of	12:00N-6:00 p.m. No. of No. of		6:00 p.m11:00 p.m. No. of No. of	
Name	Week			Hrs. Used			Stud. Hrs.
6B	Mon.				,		
,	Tues. Wed.						
	Thurs.						
18.0	Fri.						
LS C	Sat.						
TOTALS				* * * * * * * * * * * * * * * * * * * *	*		
7B	Mon.						
	Tues. Wed.						
	Thurs.						
LS C	Fri. Sat.						
	391.					. 19 ° 8 & 12	
TOTALS							
8B	Mon.		. 1				
	Tues.						
1	Wed. Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
9B	Mon.						
	Tues.						
	Wed.						
,	Thurs. Fri.		<u> </u>			*	
LS C	Sat.						
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OB	Mon.						
ovided by ERIC	Tuas			2 Salar Sala	and the second s		

Room	Day		rning	Afternoon		Evening	
No. or	of the		m12:00N		5:00 p.m.		-ii:00 p.m.
Name	Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of E Stud. Hrs.
6B	Mon.						
	Tues.						
	Wed. Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
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•	Fri.	 					
LS C	Sat.						
TOTALS							
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ł	Thurs.						
	Fri.						
LS C	Sat.						
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98	Mon.						
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Ĭ	Thurs. Fri.	-		 			
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100	Fri	 	 	 	 		
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Table 2.3 (Contid) Utilization of Departmental Instructional Area by Moom

Check Applicable Program Schedule

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b. [] Alternatingb. [] No Semester Schedulec. [] Variable	e Change

WEEKLY OR SCHEDULE A										
İ			WEEK	LY OR SCHEDI	ULE A					
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Room	Day	Mo	rning	Afte	errioon	Eve	oing			
No. or	of the	7:00 a.i	m12:00N	12:001-	6:00 p.m.	6:00 p.m.	-11:00 p.m.			
Name	Week	No. of	No. of Stud. Hrs.	No. of	No. of Stud. Hrs.	No. of	No. of Stud. Hrs.			
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HA	Tues. Wed.									
}	Thurs.									
	Fri.									
LS C	Sat.									
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	Mon.									
12A	Tues.									
	Wed. Thurs.					Line Handler Control	eren maganania and maganana di ang maganana di albahan da n			
	Fri.									
LS C	Sat.									
TOTALS										
	Mon.									
13A	Tues.									
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	Thurs.						makes,			
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21	22		23		24		25	
; Room	Day	Mo	rning	Afte	ernoon	Evening		
No. or	of the	7:00 a.	7:00 a.m12:00N		5:00 p.m.		-11:00 p.m.	
Name	Week	No. of Hrs.Used		No. of Hrs. Used	No. of Stud. Hrs.		No. of Stud. Hrs.	
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	Thurs. Fri.							
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13A	Tues.							
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LS C	Sat.							
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	Mon.		~					
15A	Tues.							
	Wed. Thurs.							
	Fri.							
LSC	Sat							
TOTALS								





Table 2.3 (Convia) Utilization of Departmental Instructional Area by Room

Check Applicable Program Schedule

i.	ь.	[] Weekly [] Alternating [] Variable	2.	a. b.	[] Semester Schedule Change [] No Semester Schedule Change
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			WE:	EKLY OR SCH	EDULE B			
26	27		28		29	3(30	
Room	Day	Morning		A	fternoon	Eve	ening	
No. or	of the		m12:00N	12:00	N-6:00 p.m.	6:00 p.m.	-11:00 p.m.	
Name	Week	Hrs.Used	No. of Stud. Hrs	No. of Hrs. Use	No. of Stud. Hrs.	I No. of	No. of	
118	Mon.							
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	Wed.					1. 10		
	Thurs.					*		
LS C	Frl. Sat.						٥	
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128	Mon.						, —	
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	Wed.							
	Thurs. Fri.		*					
LS C	Sat.							
TOTALS								
138	Mon.							
• •	Tues.				+			
	Wed.					-		
	Thurs.							
	Fri.							
S C	Sat.							
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148	Mon.							
	Tues. Wed.					1		
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s c	Sat.			+				
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IC3B						*		
vided by ERIC	Mon.				<u> </u>		•	
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Ļ	26	27	28			29		30		
	Room	Day	Мо	rning		Aft	Afternoon		en ing	
	No. or	of the	· 7:00 a.	m12:00	<u>. </u>	12:00N-6:00 p.m.		6:00 p.m.	6:00 p.m11:00 p.m.	
	Name	Week	No. of Hrs.Used	No. of Stud. Hi	f rs.	No. of	No. of Stud. Hrs.	No. of	No. of Stud. Hrs.	
İ	IIB *	Mon.			ø					
ľ	n.	Tues. Wed.								
	φ.	Thurs.			-			<u>. </u>	.a .	
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		Thurs. Fri.								
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		Tues. Wed.								
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-	S C	Fri. Sat.			7					
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Table 2.3 Utilization of Departmental Instructional Area By Room

Check Applicable Program Schedule

	[] Weekly [] Alternating	2. a. [] Semester Schedule Change b. [] No Semester Schedule Change
Ç	[] Variable /	

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31	3 2.	3	3	34	4	35	
Room	Day	Мо	rni ng	Afte	ernoon	Eve	ning
No or	of the	7:00 a.m12:00N No. of No. of		the 7:00 a.m12:00N 12:00N-6:00 p.m. No. of No. of No. of		6:00 P.M11:00 p.m. No. of No. of	
Name	Yeek	No. of Hrs.Used	Stud. Itrs.	Hrs. Used			Stud. Hrs.
16A	Mon. Tues. Wed. Thurs.						
LS C	Fri. Sat,						
TOTALS	ng jangakangkoninkang "					al or the wholest design of the state of	The same of the sa
I 7A	Mon. Tues. Wed. Thurs. Fri.						
LS C	Sat:						
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184	Mon. Tues. Wed. Thurs. Fri.						
LS G	Sat.			**************************************	1,		
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19A •	Mon. Tues. Wed. Thurs.	,					
Provided by ERIC C	Fri. Sat.						

WEEKLY OR SCHEDULE A

31	32	33		3	4	35	<u> </u>									
Room	Day	Mornit	·q ,	Afte	ernoon	Evening										
No or	of the	7:00 a.m1	2:00N		12:00N-6:00 p.m.		-11:00 p.m. No. of									
Name	Veck	No. of N Hrs. Used Stu	lo. of id. Itrs.	พืชง. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	Stud. Hrs.									
	1															
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LS C	Sat.															
TOTALS																
20A	Mon.					-										
	Tues. Wed.															
	Thurs					 	 									
LS C	Fri. Sat.			1			Ţ.,									
				1												
TOTALS																



Table 2.3 (Conr d) Utilization of Departmental Instructional Area by Room

Check Applicaboe Program Schedule

1.		[] Weekly] Semester Schedule Change
		[] Alternating	b. L] No Semester Schedule Change
	c.	[] Variable		

C. [] Valiable											
	WEEKLY OR SCHEDULE B										
36\	37 38			39	39						
Room	Day	Мо	rning	Afternoon		Eve	ning,				
No.or	of the	7:00 a. No. of	m12:00N No. of	12:00N-6	5:00 p.m.	6:00 p.m. No. of	-11:00 p.m. No. of				
Name	Week		Stud. Hrs	Hrs. Used	Stud. Hrs.		Stud. Hrs.				
[6B	Mon. Tues. Wed. Thurs.			3			i				
LS C	Frl. Sat.		·								
TOTALS	001.				-						
i 7B	Mon. Tues. Wed. Thurs.										
LS C	Fri. Sat.										
TOTALS											
188	Mon. Tues. Wed. Thurs. Fri.										
LS C	Sat.										
TOTALS				<u> </u> 							
19B	Mon. Tues. Wed. Thurs. Fri. Sat.										
TOTALS											
20B	Mon. Tues.				•						



_ 36	37			39		40		
Room	Day	Мо	rning (Afte	er n oon	Evening		
No.or	of the	7:00 a.	7:00 a.m12:00N		12:00N-6:00 p.m.		-11:00 p.m.	
Name	Week	No. of Hrs.Used	No. of Stud. Hrs	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	
		111 2 103Cd	01441 1113	11.30			ı	
168	Mon. Tues.							
2	Wed. Thurs.							
	Fri.							
LS C	Sat.					, <u> </u>		
TOTALS								
1 7B	Mon .				,			
-	Tues. Wed.							
	Thurs. Fri.							
LS C	Sat.							
TOTALS								
18B	Mon.							
	Tues.							
1	Wed. Thurs.							
LS C	Fri. Sat.							
]								
TOTALS		 						
19B	Mon. Tues.							
j	Wed.							
	Thurs. Fri.	 						
LS C	Sat.							
TOTALS					٠			
20B	Mon.			į				
}	Tues. Wed.							
	Thurs.	1						
LS C	Frl. Sat.							
TOTALS								



REPORTING TERMINAL PERFORMANCE OBJECTIVES (TERMOBS)

TABLE T-1 - INSTRUCTIONAL DIVISION AND UNIT, OUTILINE

METALWORKING PROGRAM

DOES THIS OUTLINE CONTAIN ALL OF THE INSTRUCTIONAL CONTENT OF YOUR DEGGRAM: YES NO

PEOGRA	M: YESNO		•
CODE	DIVISION	CODE	UNIT
01	DRAFTING	01 02	FREE-HAND DRAWING RADIAL LINE DEVELOPMENT
		03	PARALLEL LINE DEVELOPMENT
		03	TRIANGULATION
*	,	05	MENSURATION
		· 06	BLUEPRINT READING
		07	WELDING SYMBOLS
92	SHOP MATH	01	FRACTIONS
		02	DECIMALS
		03	CIRCUMFERENCES
-		04	ANGULAR MEASUREMENTS
		05	AREA MEASUREMENTS
		06	VOLUMES AND CAPACITIES.
		07	COSTS
03	METALLURGY	01	PROPERTIES
		02	STRUCTURE
		03	CHEMICAL ANALYSIS
	•	04	TESTING
04	POWER SOURCES	01	A. C. WELDING
•		02	D. C. WELDING
		03	OXY-ACETYLENE FLAME
05	WELDING	01	MANUAL
3 3		02	SEMI-AUTOMATIC
	•	03	AUTOMATIC
		04	MECHANICAL
		05	SAFETY
Ú6 *	FORMING AND BENDING	01	HAND FORGING
	v	02	POWER BENDING
		03	HOSSFELD BENDING
0.7	POWER MACHINES	01	GRINDERS
		02	DRILL PRESS
4.	•	03	IRON WORKER
		04	HORIZONTAL BANDSAW
•		05 *	VERTICAL BANDSAW
		06	POWER SHEAR
	*	07	POWER BRAKE
		08	NIBBLER
		09	POWER ROLLS
		10	PITTSBURG
		11	GROOVE
	·	12	SHOP MASTER
*		13	SLITTER LOCK FORMER
		14	HAND TOOLS
		15	SAFETY
		16	OWERTT

	,	07	WELDING SYMBOLS
02	SHOP MATH	01 02 03 04 05 06	FRACTIONS DECIMALS CIRCUMFERENCES ANGULAR MEASUREMENTS AREA MEASUREMENTS VOLUMES AND CAPACITIES. COSTS
03	METALLURGY —	01 02 03 04	PROPERTIES STRUCTURE CHEMICAL ANALYSIS TESTING
04	POWER SOURCES	01 02 03	A. C. WELDING D. C. WELDING OXY-ACETYLENE FLAME
05 .	WELDING	01 02 03 04 05	MANUAL SEMI-AUTOMATIC AUTOMATIC MECHANICAL SAFETY
06	FORMING AND BENDING	01 02 03	HAND FORGING POWER BENDING . HOSSFELD BENDING
07	POWER MACHINES	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	GRINDERS DRILL PRESS IRON WORKER HORIZONTAL BANDSAW VERTICAL BANDSAW POWER SHEAR POWER BRAKE NIBBLER POWER ROLLS PITTSBURG GROOVE SHOP MASTER SLITTER LOCK FORMER HAND TOOLS SAFETY
08	MANUAL MACHINES	01 02 03 04 05 06 07 08	BEVEL SHEAR FOOT SHEAR RING AND CIRCLE SHEAR BAR FOLDER HAND PUNCH NOTCHER BENDER ROLLER ROD CUTTER



TABLE T-1 (CONT'D) - INSTRUCTIONAL DIVISION AND UNIT OUTLINE METALWORKING PROGRAM

CODE	DIVISION	CODE	UNIT
08	MANUAL MACHINES	10	PRESS BRAKE
	(CONT D)	11	CORNICE BRAKE
		12	BOX AND PAN BRAKE
	-	13	GROOVER
÷		14	ROTARY MACHINES
		15	SAFETY
09	BENCHWORK	01	PLANNING
		02	LAYOUT
		03	CUTTING
		04	FORMING
	•	05	RAISING
		06	DRILLING
		07	SEAMING
		08	FITTING
		09	RIVETING
		10	SOLDERING
		11	WIRE EDGING
		12	FINISHING
		13	JIGGING
		14	SAFETY
10	STEEL SHAPES	01	STRUCTURAL
10	STEEL SHAPES	02	
		03	PLATE
			SHEET
7	·	04 05	BAR EXTRUSIONS
	DI NUD GUMMING	0.1	WAND
11	FLAME CUTTING	01 02	HAND
		03	AUTOMATIC
	n.		STRAIGHT
		04 05	SHAPE
		US	SAFETY
12	FABRICATION	01	BOXES
-		02	PANS
		03	CABINETS
	W	04	DRAWERS
		05	TABLE TOPS
		06	CYLINDERS
		07	LOCKERS
	ture s	08	HOODS
	Section 4	09	BUTTERS
		10	FUNNELS
		11	DOORS
		12	SHELVES
		13	LANTERNS
13	FINISHING	01	CHIPPING
0"		02	GRINDING
V ERIC		03	BRUSHING
Y ERIC		04	SANDING

09	BENCHWORK		01	PLANNING
•			02	LAYOUT
			03	CUTTING
			04	FORMING
			05	RAISING
			06	DRILLING
			07	SEAMING
			08	FITTING
			09	RIVETING
			10	SOLDERING
-			11	WIRE EDGING
•	-	=	12	FINISHING
	-		13	JIGGING
			14	SAFETY
10	STEEL SHAPES		~ 01	STRUCTURAL
	·		02	PLATE
			03	SHEET
			04	BAR
- .	-		05	EXTRUSIONS
	-			2
11	FLAME CUTTING		01	HAND
			02	AUTOMATIC
			03	STRAIGHT
			04	SHAPE
			05	SAFETY
12	FABRICATION *		01	BOXES
	,		02	PANS
			03	CABINETS
			04	DRAWERS
			05	TABLE TOPS
			06	CYLINDERS
			07	LOCKERS
			08	HOODS
			09	BUTTERS
			10	FUNNELS
		5 July 1 2	11	DOORS
K.			12	SHELVES
		\$	13	LANTERNS
				Di4(IDI4(D
13	FINISHING		01	CHIPPING
			02	GRINDING
			03	BRUSHING
			04	SANDING
			05	GRAINING
			06	POLISHING
			07	PAINTING
			08	ANTIQUING
			09	SAFETY
			0	own hii
14	HEAT TREATING		01	OVEN
			02	TORCH
			03	ELECTRICAL
			• • •	THO TIVE CULT

TABLE T-1 (CONT'D) - INSTRUCTIONAL DIVISION AND UNIT OUTLINE METALWORKING PROGRAM

CODE	DIVISION	CODE	TINU
15	INSTALLATION	01	BRACKETS
נו	INDIALDATION	02	HOODS
	e se	03	KITCHEN EXHAUSTS
		04	BATHROOM EXHAUSTS
		05	HEATING SYSTEMS
		06	AIR CONDITIONING SYSTEMS
		07	FLUE PIPES
		08	LOUVRES
		09	DRIER VENTS
		10	PARTITIONS
		11	FIRE DOORS
		12	CABINETS
		13	LOCKERS
		. 14	RAILINGS
16	METAL SCULPTURES	01	INSPIRING
1.5	THE THE DOODLE TO THE	02	CREATING
	-	63	BUILDING
17	PLASTICS	01	CUTTING
11	F IIAB I I Co	02	HEATING
-		03	FORMING *
		C4	FABRICATING
	-	05	WELDING
		06	BOLTING
		07	RIVETING
		08	CEMENTING

TABLE T-2 - TERMOB DIVISION AND UNIT OUTLINE METALWORKING PROGRAM

DOES THIS OUTLINE CONTAIN ALL TOPICS IN WHICH GRADUATES ACQUIRE JOB-ENTRY SKILLS: YES NO

CODE	DIVISION	CODE	UNIT
01	PATTERN DRAFTING	01	PARALLEL LINE DEVELOPMENT
		02	RADIAL LINE DEVELOPMENT
j e ^e	•	03	TRIANGULATION
02	WELDING AND CUTTING	01	ELECTRIC ARC
	بر	02	TIG
		03 .	MIG
	*	04	OXYGEN ACETYLENE
		0 5	BRAZING
		06	RESISTANCE WELDING
03	HEAT TREATING	01	ANNEAL
		02	DEEP HARDENING
		03	CASE HARDENING
		04	TEMPERING
		05	HARDNESS TESTING
	•	06	STRESS RELIEVING
ч		07	NORMALIZING
04	SHEETMETAL FABRICATION	01	INDUSTRIAL EQUIPMENT
•		02	HOUSEHOLD EQUIPMENT
		03	PRECISION SHEETMETAL
		04	HEATING AND VENTILATION
Ú5	"ART" METALWORK		



TERMINAL PERFORMANCE OBJECTIVES (TERMOBS)
and
REPORTING FORMS

MISOE	NO.	•	:
PROGR	AM <u>METALWO</u>		
	*	D	ARALLEL LINE EVELOPMENT 7-001
1.00	CONDITION		
,		DIMENSIONED ISOMETRIC DRAWING OF ROUDERAFTING TOOLS (TABLE T-3A)	ND TEE
2.00	PERFORMANC	CE .	· ·
	GENERAL ST	CATEMENT OF PERFORMANCE AND RESULTING LAY OUT PATTERNS FOR ROUND TEE BY PAR MENT METHOD EMPLOYING THE FOLLOWING	ALLEL LINE DEVELOP
ā	() 2.02 () 2.03 () 2.04 () 2.05	LOCATE MEASURING LINES ON NECESSARY TRANSFER MEASURING LINES FROM NECESS LOCATE INTERSECTION AND PATTERN OUTL	ARY VIEWS TO
3.00	EXTENT		
٠	GENERAL ST	PATTERNS FOR ROUND TEE ARE LAID OUT DRAWING TO APPROVAL OF BOARD OF EXPECTABLE OF SATISFACTORY OR UNSATISFACTORY	AS SPECIFIED IN RATERS. TO BE
	() 3.02 () 3.03 () 3.04 () 3.05	TO $\pm 1/32$, MEASURING LINES ARE SPACED FACILITATE LOCATION ON THE PATTERN TO $\pm 1/32$	

	محمدی		
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING	
USOE CODE NO(S)	UNIT 01 TERMOB NO.	PARALLEL LINE DEVELOPMENT 17-001	
1.00 CONDITION			5 °. €2, \$
1.00 CONDITION			

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	No.			
PROGR	AM <u>METALWO</u>	DRKING	DIVISION 01	PATTERN-MAKING
			UNIT 01	
	26			DEVELOPMENT
			TERMOB NO.	17-002
1.00	CONDITION			
	,	DIMENSIONED ISOMETRIC AT ONE END		ROUND PIPE WITH MITER
	() 1.02	DRAFTING TOOLS (TABLE	T-3A)	•
2.00	PERFORMANO	CE		
	CENEDAL CO	CATEMENT OF PERFORMANCE	AND PESHIT	ING OUTCOME
				WITH MITER AT ONE END
		BY PARALLEL LINE DEVE FOLLOWING OPERATIONS:	LOPMENT MET	HOD EMPLOYING THE
	() 2.02	DRAW ALL NECESSARY VI	EWS	
	() 2.03			
	() 2.04	TRANSFER MEASURING LI INTERSECTIONS AND PAT		CESSARY VIEWS TO LOCATE
	() 2.05			
3.00	EXTENT	* .		
5	CENEDAL ST	PATEMENT OF EXTENT AND	EVERNE OF DI	ESILTING OUTCOME
٠	() 3.01		F IS LAID OF BOARD OF BOUR WITH EA	OUT AS SPECIFIED IN EXPERT RATERS. TO BE ACH OPERATION JUDGED
,	() 3.02 () 3.03	TO $\pm 1/32$, MEASURING I		
	() 3.04 () 3.05	FACILITATE LOCATION C TO +1/32 TO +1/32	IN THE PATTE	
	ę.			

		MISOE NO.	
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING	
USOE CODE NO(S)	UNIT 01	PARALLEL LINE	
	TERMOB NO.	DEVELOPMENT 17-002	
1.00 CONDITION			
-			
2.00 PERFORMANCE			<u>.</u> 1

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.				
PRÖGR	AM M	ETALWO	RK1NG	DIVISION 01	PATTERN-MAKING
				UNIT 01	PARALLEL LINE
				ONIT OI	DEVELOPMENT
				TERMOB NO.	17-003
				TERRIOD NO.	
•			•		•
1.00	COND	ITION	•		
	()	1.01	DIMENSIONED ISOMETRIC	DRAWING OF S	TRAIGHT RECTANGULAR
	()	1.02	DRAFTING TOOLS (TABLE	E T-3A)	
2.00	PERF	ORMANC	E		
,			<u> </u>		
	CENE	מאד כייי	ATEMENT OF PERFORMANCI	E AND RÉSHLTIN	G OUTCOME
		2.01			
	,	2.01	PARALLEL LINE DEVELOR		
			FOLLOWING OPERATIONS		
· ·					
	()		DRAW ALL NECESSARY VI LOCATE MEASURING LIN		V UTENC
	()	2.03	TRANSFER MEASURING LIN		
	()	2.04	LOCATE INTERSECTIONS		
	()	2 05	CONNECT POINTS LOCATE		
	()		MARK FOR FORMING ALL		
	()	2.00			
3.00	EXTE	NT			
	CENE	יוסאד פייי	ATEMENT OF EXTENT AND	EXTENT OF RES	HITTING OUTCOME
	GENE	3.01		RECTANGULAR D	UCT IS LAID OUT AS
	' '	3.01	SPECIFIED IN DRAWING	TO APPROVAL O	F BOARD OF EXPERT
			RATERS. TO BE COMPL	ETED WITHIN 45	MINUTES WITH EACH
	1		OPERATION JUDGED AS	SATISFACTORY O	R UNSATISFACTORY
	!				
		2 22	mo 1/22		
	()	3.02	TO +1/32	ב אותר און פראס	ED IN A MANNED TO
	()	3.03	TO $\pm 1/32$, MEASURING FACILITATE LOCATION		
	()	3.04	TO +1/32	OH THE PATIENT	
	()	3.04	TO $\mp 1/32$		
	()	3.05	the state of the s	 -9	:
	` '	2.00	TO $\pm 1/32$ 5	ĺ	

			MISOE NO.	
PROGRAM <u>METALWORKING</u>	DIV	DIVISION 01 PATTERN-MAKING		
USOE CODE NO(S)	UNIT	UNIT 01 PARALLEL LIN		
	TER	MOB NO.	DEVELOPMENT 17-003	
1.00 CONDITION				
2.00 PERFORMANCE	*			
GENERAL STATEMEN	T OF PERFORMANC	E AND RES	SULTING OUTCOME	

3.00 EXTENT



MISOE	NO.					1 - a ² - 2 - 1_	
PROGR	AM N	ETALWO	RK I NG	DIVISION	01	PATTERN-MAKING	-
				UNIT	01	PARALLEL LINE	-
					0.1	DEVELOPMENT	_
				TERMOB NO	o.	17-004	_
-							-
		k .					
1.00	COND	ITION					
	()	1.01	DIMENSIONED ISOMETRIC		OF A	RECTANGULAR DUCT	
	()	1.02	DRAFTING TOOLS (TABL				
						and the second of the second o	
2.00	PERF	ORMANC	E				
_ •			A				
			1				
			NAME OF DEDECTION OF	n and becit	T ጥፐ እ፣	COUTCOME	,
	GENE	2.01	ATEMENT OF PERFORMANC LAY OUT A PATTERN FOR	A RECTANG	III.AR	DUCT WITH A DOUBLE	1
	' '	2.01	ANGLE BY PARALLEL LI	NE DEVELOP	MENT	METHOD EMPLOYING	
			THE FOLLOWING OPERAT	IONS:		·	
]						1
							
	()	2.02		IEWS	CCAD	v utelic	
	()	2.03	LOCATE MEASURING LIN TRANSFER MEASURING L	ES ON NECE	NECE	Y VIEWS TO LOCAT	E.
	()	2.04	INTERSECTIONS AND PA			SSARI VILWS 10 LOCKI	_
	()	2.05	CONNECT POINTS LOCAT			G LINES	
	7 5	2.06					
	•						
3.00	EXTE	NT					
	CENE	BAL ST	PATEMENT OF EXTENT AND	EXTENT OF	RES	ULTING OUTCOME	
	GENT	3.01	PATTERN FOR RECTANGU	LAR DUCT I	S LA	ID OUT AS SPECIFIED	
	1 ` ′		IN DRAWING TO APPROV	AL OF BOAF	ED OF	EXPERT RATERS. TO	
			BE COMPLETED WITHIN	ONE HOUR W	ITH	EACH OPERATION JUDGE	D
	1		AS SATISFACTORY OR U	NSATISFACI	ORY	4	
	()	3.02	TO +1/32				
	()	3.02	TO $\pm 1/32$, MEASURING	LINES ARE	SPAC	ED IN A MANNER TO	
	()	2.03	FACILITATE LOCATION	ON THE PAT	TERN	ī	
	()	3.04	_				
	()	3.05	TO $\pm 1/32$				
	()	3.06		-0			
			i i	59			

		MISOE NO.	
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING	
USOE CODE NO(S)	UNIT 01	PARALLEL LINE DEVELOPMENT	
	TERMOB NO.	17-004	_
	-	-	
1.00 CONDITION		•	
	à		
2.00 PERFORMANCE	ſ		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO		·	j.				
PROGRA	AMI	METALWO	ORKING	DIVISION	01 .	PATTERN-MAKING		
	***************************************	:		UNIT TERMOB NO	01	PARALLEL LINE DEVELOPMENT 17-005		
1.00	CONDI	TION						
	()		DIMENSIONED ISOMETRIC DRAFTING TOOLS (TABLE		OF 3-	PIECE ROUND ELBOW		
2.00	PERF	ORMANC:	E .			•		
	GENE	RAL ST	STATEMENT OF PERFORMANCE AND RESULTING OUTCOME 11 LAY OUT PATTERNS FOR 3-PIECE ELBOW BY PARALLEL LINE DEVELOPMENT METHOD EMPLOYING THE FOLLOWING OPERATIONS:					
	()	2.02 2.03 2.04 2.05	DRAW ALL NECESSARY VI LOCATE MEASURING LINE TRANSFER MEASURING LI LOCATE INTERSECTIONS CONNECT POINTS LOCATE	S ON NECE NES FROM AND PATTE	NECES	SSARY VIEWS TO UTLINE		
3.00	EXTE	NT	x					
	· ——	RAL ST	ATEMENT OF EXTENT AND PATTERNS FOR 3-PIECE IN DRAWING TO APPROVE BE COMPLETED WITHIN TO JUDGED AS SATISFACTOR	ELBOW IS L OF BOAR WO HOURS	LAID OF WITH	OUT AS SPECIFIED EXPERT RATERS. TO EACH OPERATION		
	()	3.02 3.03 3.04 3.05	TO $\pm 1/32$ TO $\pm 1/32$, MEASURING I FACTLITATE LOCATION OF $\pm 1/32$ TO $\pm 1/32$			ED IN A MANNER TO		



		MISOE NO.
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING
USOE CODE NO(S)	UNIT 01 TERMOB NO.	PARALLEL LINE DEVELOPMENT 17-005
1.00 CONDITION	,	
2.00 PERFORMANCE		
GENERAL STATEMENT OF PERFO	ORMANCE AND RES	ULTING OUTCOME

3.00 EXTENT



MISOE	NO.				•
PRÓGR	AM METALWO	RKING	DIVISION	01	PATTERN-MAKING
			UNIT TERMOB NO		RADIAL LINE DEVELOPMENT 17-006
1.00		DIMENSIONED ISOMETRIC DRAFTING TOOLS (TABLE		OF CE	ENTERED ROUND TAPER
2.00	PERFORMANC	E			
3.00	() 2.01 () 2.02 () 2.03 () 2.04	AND BOTTOM CORNERS OF USING DIVIDERS STEPOFT	THE TAPES CENTER PS CENTER PS THE TAPES THE TAPES THE TAPES	ROUNE ING T ROJEC ROJEC ROJEC	TAPER BY THE RADIAL THE FOLLOWING TO FORM AN APEX CT ARCS FROM THE TOP ON THE BOTTOM CURVE
	GENERAL ST	ATEMENT OF EXTENT AND PATTERN FOR CENTERED IS SPECIFIED IN DRAWING TRATERS. TO BE COMPLETED OPERATION JUDGED AS SA	ROUND TAPE TO APPROVA TED WITHIN	ER IS AL OF ONE	LAID OUT AS BOARD OF EXPERT HOUR WITH EACH
	() 3.02 () 3.03 () 3.04 () 3.05 () 3.06	TO $\pm 1/32$			

					å	MISOE NO.	
PROGRI	M META	LWORKING	<u> </u>	DIVIS	ION 01	PATTERN-MAKI	NG
USOE (CODE NO(S	5)		UNIT	02	RADIAL LINE	
				TERMO	B NO.	DEVELOPMENT 17-006	
1.00	CONDITIO	N					
2.00	PERFORM	ANCE				ı,	
		۱ . پر		* .		Trug OUTGOND	
	GENERAL	STATEMENT	OF PER	FORMANCE	AND RES	SULTING OUTCOME	

3.00 EXTENT



MISOE	NO.				
PROGRA	AM METALWORKING		DIVISION UNIT TERMOB NO	02	PATTERN-MAKING RADIAL LINE DEVELOPMENT 17-007
1.00	CONDITION () 1.01 DIMENSION () 1.02 DRAFTING PERFORMANCE	ED ISOMETRIC TOOLS (TABLE	DRAWING (T-3A)	OF RO	UND RIGHT CONE
	GENERAL STATEMENT OF OUT A DEVELOPMENT	ו פראו זאמיםיתייא מ	POLIND KIG	H'I' CO	OUTCOME NE BY RADIAL LINE LLOWING OPERATIONS:
J	() 2.03 DRAW THE	ELEVATION VII PLAN VIEW ETCHOUT ARC TRUE LENGTHS		LEMEN	TS ON STRETCHOUT
3.00	EXTENT				
	DRAWING BE COMPL	FOR ROUND CON	E IS LAID F BOARD O NE HOUR W	F EXE	PERT RATERS. TO EACH OPERATION
	() 3.02 TO +1/32 () 3.03 TO +1/32 () 3.04 TO +1/32 () 3.05 ALL TRUE	LENGTHS IDEN	TIFIED AN	ND PRO	OPERLY RECORDED

		MISOE NO.	
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING	
USOE CODE NO(S)	UNIT 02	RADIAL LINE DEVELOPMENT	
	TERMOB NO.	17-007	
1.00 CONDITION			,-°
.00 PERFORMANCE	,		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.						
PROGR	AM METALWO	RKING	DIVISION	01	PATTERN-M	AKING	
			UNIT	03	TRIANGULA	TION	
-			TERMOB NO	.	17-008		<u></u>
1.00	CONDITION		*:				
1.00		DIMENSIONED ISOMETRIC	DRAWING	of s	QUARE TO RO	DUND	ن
	() 1.02	DRAFTING TOOLS (TABLE	T-3A)		_		
2.00	PERFORMANC	E			3	•	w _{id}
	GENERAL ST	ATEMENT OF PERFORMANCE LAY OUT A PATTERN FOR TRIANGULATION METHOD	A SQUARE	TO RO	OUND FITTIN	G BY THE	<u>₹</u> Ons
	() 2.02 () 2.03 () 2.04 () 2.05 () 2.06 () 2.07	CONSTRUCT PLAN AND EI IDENTIFY TRUE LENGTHS DRAW TRUE LENGTH TRIA ESTABLISH TRUE GIRTH LOCATE NEW POINTS BY CONNECT NEW POINTS	S ANGLE SPACE		M TWO KNOWN	POINTS	•
3.00	EXTENT	•					
	GENERAL ST	PATEMENT OF EXTENT AND PATTERN FOR A SQUARE SPECIFIED IN DRAWING RATERS. TO BE COMPLIONERATION JUDGED AS S	TO ROUND TO APPROV ETED WITHI	FITT AL O N TW	ING IS LAII F BOARD OF O HOURS WIT	O OUT AS EXPERT TH EACH	<u></u>
	() 3.02 () 3.03 () 3.04 () 3.05 () 3.06 () 3.07	TO +1/32 ALL TRUE LENGTHS ALL TO +1/32 TO +1/32 TO +1/32 TO +1/32 TO +1/32, CURVE IS FA		BD .			

PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING
SOE CODE NO(S)	UNIT 03	TRIANGULATION
· · · · · · · · · · · · · · · · · · ·	TERMOB NO.	17-008
.00 ' CONDITION		**************************************

MISOE NO.

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO.			
PROGRA	AM <u>METALWO</u>	RKING	DIVISION 01 UNIT 03	PATTERN-MAKING TRIANGULATION
			TERMOB NO.	17-009
1.00	CONDITION	-		
÷ •	• •	DIMENSIONED ISOMETRIC OFF CENTER DRAFTING TOOLS (TABLE		OUND TAPER THAT IS
2.00	PERFORMANC	E		1
	GENERAL ST	ATEMENT OF PERFORMANCE LAY OUT A ROUND TAPER ANGULATION METHOD EMP	THAT IS OFF C	ENTER BY THE TRI-
	() 2.03 () 2.04 () 2.05	CONSTRUCT PLAN AND ELIDENTIFY TRUE LENGTHS DRAW TRUE LENGTH TRIA ESTABLISH GIRTH SPACE LOCATE NEW POINTS BY CONNECT NEW POINTS	NGLE S	M TWO KNOWN POINTS
3.00	EXTENT			
	GENERAL ST	PATEMENT OF EXTENT AND PATTERN FOR ROUND TAP DRAWING TO APPROVAL O COMPLETED WITHIN TWO AS SATISFACTORY OR UN	PER IS LAID OF BOARD OF EX HOURS WITH EA	UT AS SPECIFIED IN PERT RATERS. TO BE
·	() 3.02 () 3.03 () 3.04 () 3.05 () 3.06	TO +1/32 ALL TRUE LENGTHS ARE TO +1/32 TO +1/32 TO +1/32	IDENTIFIED	



		MIDON NO.
PROGRAM METALWORKING	DIVISION 01	PATTERN-MAKING
USOE CODE NO(S)	UNIT 03	TRIANGULATION
	TERMOB NO.	17-009

1.00 CONDITION	;³	

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO.						
PROGR	PROGRAM METALWORKING			02 🐫	WELDING & CHTTING		
			UNIT	01	ELECTRIC ARC		
	:	en en en en en en en en en en en en en e	TERMOB NO		17-010		
, Р			TERMOD NO	· •	17 010		
1.00	CONDITION	÷	•				
	() 1.07 () 1.08 () 1.09 () 1.10 () 1.11 () 1.12	BLUEPRINT OF BUTT JOE BLUEPRINT OF LAP JOE BLUEPRINT OF TEE JOE BLUEPRINT OF CORNER BLUEPRINT OF EDGE JOE ELECTRIC ARC WELDING WELDING HAND TOOLS TABLE OF CURRENT SET TABLE FOR SELECTING MILD STEEL STOCK HIGH CARBON STEEL STAINLESS STEEL STOC LOW ALLOY STEEL	NT NT JOINT INT EQUIPMENT (TABLE T-3E TINGS THE ELECTRO				
2.00	0 PERFORMANCĖ						
	GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME						
	() 2.01	WELD A JOINT OR SEAM PLOYING THE FOLLOWING	AS SPECIFI	ED I			
3.00	() 2.04	CHECK ALL ELECTRICAL SET CURRENT SELECT THE ELECTRODE INITIATE WELD			N THE HOLDER		
	GENERAL ST	PATEMENT OF EXTENT AND JOINT OR SEAM IS WEL PENETRATION TO APPROBE COMPLETED WITHIN AS SATISFACTORY OR U	DED WITH SM VAL OF BOAR 1/2 HOUR WI	MOOTH RD OF LTH E	NESS AND PROPER EXPERT RATERS. TO		
	() 3.03 () 3.04	ALL ELECTRICAL CONNE CURRENT IS SET AS SP PROPER ELECTRODE AS NO MARRING WITH SCRA	ECIFIED IN SPECIFIED]	TABL	E BLE IS SELECTED		
		n	1				



•		MISOE NO.
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE NO(S)	UNIT 01	ELECTRIC ARC
	TERMOB NO.	17-010
·		
1.00 CONDITION		
•		

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.					
PROGR	AM <u>M</u>	ETALWOI	RKING	DIVISION UNIT TERMOB NO	01	WELDING & CUTTING ELECTRIC ARC 17-011
1.00	()	1.01 1.02 1.03 1.04	WORN CAST IRON PIECE ELECTRIC ARC WELDING WELDING HAND TOOLS (T TABLE OF CURRENT SETT WELDING RODS	ABLE T-3B)	. A
2.00	PERF	ORMANC	E			
	()	2.01 2.02 2.03	ATEMENT OF PERFORMANCE REBUILD WORN AREA OF EMPLOYING THE FOLLOWI CHECK ALL ELECTRICAL SELECT ELECTRODE SET CURRENT	CAST IRON NG OPERAT	PIEC IONS:	E FOR RE-MACHINING
3.00		2.05	BUILD UP WORN AREA	- .		
e	GENE	\$3.01	ATEMENT OF EXTENT AND WORN CAST IRON PIECE OF EXPERT RATERS. TO HALF HOURS WITH EACH OR UNSATISFACTORY	IS REBUIL BE COMPL	T TO ETED	APPROVAL OF BOARD WITHIN ONE AND ONE-
	() () ()	3.03 3.04	ALL CONNECTIONS ARE TO CORRECT ELECTRODE SELT AS SPECIFIED IN TABLE METAL IS EVENLY DISTR	ECTED	CLEAN	, ,



		1111000 1101	
		,	
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING	;
USOE CODE NO(S)	UNIT 01	ELECTRIC ARC	
	TERMOB NO.	17-011	············
1.00 CONDITION			

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.			•		
PROGR	AM	METALW	ORKING	DIVISIO	N 02	WELDING & CUTTING
				UNIT	01	ELECTRIC ARC
				TERMOB I	NO.	17-012
7			i de la companya de la companya de la companya de la companya de la companya de la companya de la companya de		÷	
1.00	COND	ITION			•	
	() () () () ()	1.02 1.03 1.04 1.05	WORN CAST IRON PIECE ELECTRIC ARC WELDING WELDING HAND TOOLS TABLE OF CURRENT SET NICKEL WELDING RODS BENCH GRINDER	G EQUIPMEN (TABLE T-3		
2.00	PERF	ORMANC	E	t ·	•	
	GENE	RAL ST	ATEMENT OF PERFORMANCE HARD RESURFACE CAST ABRASION EMPLOYING	IRON PIEC	E TO	CREATE RESISTANCE TO
	() () ()	2.03 2.04	CHECK ALL ELECTRICAL SELECT ELECTRODE SET CURRENT BUILD UP WORN AREA	L CONNECTI	ONS	
3.00	EXTE	NT				•
	GENE	RAL ST	ATEMENT OF EXTENT ANI	D EXTENT O	F RES	ULTING OUTCOME
•		3.01	CAST IRON PIECE IS I BOARD OF EXPERT RATI HOURS WITH EACH OPEN UNSATISFACTORY	HARD RESUR ERS. TO B	FACED E COM	TO APPROVAL OF PLETED WITHIN TWO
,	() () ()	3.03 3.04	ALL CONNECTIONS ARE CORRECT ELECTRODE SI AS SPECIFIED IN TABI METAL IS EVENLY DIST	ELECTED LE	CLEA	N

						*	
						MISOE NO.	
P R OGI	RAM <u>MET</u>	ALWORKING		DIVISION	02	WELDING & CUTTING	
USOE	CODE NO (s)		UNIT	01	ELECTRIC ARC	
				TERMOB N	0.	17-012	
1.00	CONDITIO	NC				•	
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							•
2 00	PERFORM	ANCE					2
2.00	PERFORM	ANCE				•	
	GENERAL	STATEMENT C	F PERFOR	MANCE AND	RES	ULTING OUTCOME	
						ı	
				1			

3.00 EXTENT



MISOE	NO					
PROGR	AM <u>METALW</u>	ORKING	DIVISION UNIT	02 01	WELDING & CUTTIN	G
			TERMOB NO	·	17-013	
1.00	CONDITION		Q.		v.	
ı	() 1.02 () 1.03 () 1.04 () 1.05	WORN CAST IRON PIECE ELECTRIC ARC WELDING WELDING HAND TOOLS (TABLE OF CURRENT SET STAINLESS STEEL WELD BENCH GRINDER	EQUIPMENT TABLE T-3B TINGS)		
2,00	PERFORMANC	E				
	GENERAL ST	ATEMENT OF PERFORMANC HARD RESURFACE CAST CORROSION EMPLOYING	IRON PIECE	TO	CREATE RESISTANCE	TO .
5 ⁶	() 2.03 () 2.04	CHECK ALL ELECTRICAL SELECT ELECTRODE SET CURRENT BUILD UP WORN AREA	CONNECTIO	NS		
3.00	EXTENT					
	GENERAL ST	CATEMENT OF EXTENT AND CAST IRON PIECE IS H BOARD OF EXPERT RATE HOURS WITH EACH OPER UNSATISFACTORY	ARD RESURF	ACED COM	TO APPROVAL OF SPLETED WITHIN TWO	
	() 3.02 () 3.03 () 3.04 () 3.05	ALL CONNECTIONS ARE CORRECT ELECTRODE SE AS SPECIFIED IN TABI METAL IS EVENLY DIST	ELECTED LE	CLEA	.N	3

			4		-	MISOE	NO		
PROGR	AM <u>MET</u>	ALWORKING		DIVISION	02	WELD	ING & CU	TTING	
USOE	CODE NO(S	5)		UNIT	01	ELECT	RIC ARC		
				TERMOB NO	0.	17-01			
								-	
1.00	CONDITIO								
	00.10111	,1,		٠					
				•					
									-
2.00	PERFORM	ANCE							
	¥								
	GENERAL	STATEMENT	OF PERFOR	MANCE AND	RES	ULTING	OUTCOME		
				,					
						>		v	*
3.00	EXTENT			•					
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	ALWORKING	DIVISION	02	WELDING & CUTTING
**************************************		UNIT	02	TIG
		TERMOB NO) . į	17-014
	•			
		_	J	
0 CONDITION	ON			•
() 1. () 1. () 1. () 1. () 1. () 1. () 1. () 1.	01 BLUEPRINT OF BUTT JO 02 BLUEPRINT OF LAP JO 03 BLUEPRINT OF TEE JO 04 BLUEPRINT OF CORNER 05 BLUEPRINT OF EDGE JO 06 TIG WELDING EQUIPME 07 WELDING HAND TOOLS 08 TABLE OF CURRENT SE 09 TABLE FOR SELECTING 10 1/8" MAGNESIUM 11 3/16" MAGNESIUM 11 3/16" ALUMINUM 13 STAINLESS STEEL (UP	INT INT JOINT OINT (TABLE T-3B TTINGS THE ELECTR	ODES	
() 1.	.14 STAINLESS STEEL (.0 .15 BRASS ALLOYS .16 LOW CARBON STEEL (. .17 CAST IRON			
GENERAI	L STATEMENT OF PERFORMAN	IT AS SPECIE	TED	G OUTCOME IN BLUEPRINT EM-
() 2 () 2 () 2 () 2 () 2 () 2 () 2	L STATEMENT OF PERFORMAN O1 WELD A SEAM OR JOIN PLOYING THE FOLLOWI O2 CHECK ALL ELECTRICA O3 CUT ELECTRODE O4 ADJUST THE ELECTRODE O5 SET AMPERAGE O6 SET INERT GAS O7 POSITION FILLER ROI O8 WELD	TAS SPECIE TO OPERATIO AL CIRCUIT O	NS:	IN BLOEFRINI EN

ALL CONNECTIONS TIGHT 3.02 () AND CUT TO APPROPRIATE LENGTH

JUDGED AS SATISFACTORY OR UNSATISFACTORY

PENETRATION TO APPROVAL OF BOARD OF EXPERT RATERS.

BE COMPLETED WITHIN TWO HOURS WITH EACH OPERATION

TO

2.00	() 1.05 () 1.06 () 1.07 () 1.08 () 1.09 () 1.10 () 1.11 () 1.12 () 1.13 () 1.14 () 1.15 () 1.16	WELDING HAND TOOLS (TABLE T-3B) TABLE OF CURRENT SETTINGS TABLE FOR SELECTING THE ELECTRODES 1/8" MAGNESIUM 3/16" MAGNESIUM 1/4" ALUMINUM STAINLESS STEEL (UP TO .050") STAINLESS STEEL (.050" AND UP) BRASS ALLOYS LOW CARBON STEEL (.015" TO .030") CAST IRON	
	GENERAL S'	TATEMENT OF PERFORMANCE AND RESULTING OUTCOME WELD A SEAM OR JOINT AS SPECIFIED IN BLUEPRINT EM- PLOYING THE FOLLOWING OPERATIONS:	
	() 2.03 () 2.04 () 2.05 () 2.06	CHECK ALL ELECTRICAL CIRCUIT CONNECTIONS CUT ELECTRODE ADJUST THE ELECTRODE SET AMPERAGE SET INERT GAS POSITION FILLER ROD WELD	

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 SEAM OR JOINT IS WELDED WITH SMOOTHNESS AND PROPER PENETRATION TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN TWO HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

()	3.03 3.04	ALL CONNECTIONS TIGHT PROPER DIAMETER SELECTED AND CUT TO APPROPRIATE LENGTH ELECTRODE EXTENDS 1/8" TO 3/16" BEYOND END OF GAS CUP CORRECT AMPERAGE
()	3.06	CORRECT FLOW
()	3.07	AT PROPER ANGLE
()	3.08	SEAM OR JOINT SMOOTH WITH METAL EVENLY DISTRIBUTED



		MISOE NO.
		* *
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE NO(S)	UNIT 02	TIG
	TERMOB NO.	17-014
1.00 CONDITION		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.		, s	5.
PROGRI	AM <u>METALWO</u>	RKING	DIVISION 02	WELDING & CUTTING
			UNIT 02	TIG
		e de la companya de l	TERMOB NO.	17-015
		•	۵	<i>M</i> ·
1.00	CONDITION	t t	3	
1.00		đ		•
· S	() 1.02	WORN CAST IRON PIECE TIG WELDING EQUIPMEN WELDING HAND TOOLS (IT (TABLE T-3B)	ŧ
	() 1.04	TABLE OF CURRENT SET NICKEL WELDING RODS	. IINGS	
		BENCH GRINDER		
2 00	PERFORMANO	· · · · · · · · · · · · · · · · · · ·		·
2.00	PERFORMANC	, 		ي
į				•
	GENERAL ST	PATEMENT OF PERFORMANC	CE AND RESULTIN	IG OUTCOME
"	() 2.01	HARD RESURFACE CAST ABRASION EMPLOYING	THE FOLLOWING C	OPERATIONS:
'	() 2.02	CHECK ALL ELECTRICAL	L CONNECTIONS	n .
	() 2.03	CUT ELECTRODE		* p.
6 6	() 2.04	ADJUST ELECTRODE SET AMPERAGE	,	
*	() 2.05 () 2.06	SET AMPERAGE SET INERT GAS	ø	
	() 2.07	POSITION FILLER ROD		*
Ş Ş	() 2.08	BUILD UP WORN AREA	*	
2 00	nymnim			
3.00	EXTENT	¥ !	٠.	
			هري.	
	GENERAL S'	TATEMENT OF EXTENT AN	D EXTENT OF RE	SULTING OUTCOME
	() 3.01	CAST IRON PIECE IS BOARD OF EXPERT RAT HOURS WITH EACH OPE UNSATISFACTORY	HARD RESURFACE ERS. TO BE CO	MPLETED WITHIN TWO
			um and crean	s fig.
79	() 3.02	ALL CONNECTIONS TIG TO PROPER LENGTH		3
	() 3.03 () 3.04	ELECTRODE EXTENDS 1	/8" TO 3/16" B	EYOND END OF GAS CUP
	() 3.05	CORRECT AMPERAGE		
	() 3.06	CORRECT FLOW	٠.	
	() 3.07 () 3.08		TRIBUTED	•
	() 3.00	METUT TO DADIET DID		

PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE NO(S)	UNIT 02	TIG
	TERMOB NO.	17-015
1.00 CONDITION		

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.			· · · · · · · · · · · · · · · · · · ·	
PROGRA	METALWOF	RKING	DIVISION 0	2 WELDING & CUTTING	<u>_</u> ,
			UNIT C	2 TIG	_
			manua No	17 016	_
			TERMOB NO.	17-016	-
1.00	CONDITION				
	() 1.02 () 1.03 () 1.04 () 1.05	WORN CAST IRON PIECT TIG WELDING EQUIPMENT WELDING HAND TOOLS TABLE OF CURRENT SE STAINLESS STEEL WELD BENCH GRINDER	NŤ (TABLE T-3B) TTINGS		
2.00	PERFORMANC	E			
	GENERAL ST.	ATEMENT OF PERFORMAN HARD RESURFACE CAST CORROSION EMPLOYING	IRON PIECE	TO CREATE RESISTANCE TO	-
	() 2.05 () 2.06	CHECK ALL ELECTRICA CUT ELECTRODE ADJUST ELECTRODE SET AMPERAGE SET INERT GAS POSITION FILLER ROD BUILD UP WORN AREA		S	
3.00	EXTENT				
		ATEMENT OF EXTENT AN	ID EXTENT OF	RESULTING OUTCOME	
۰	() 3.01	BOADD OF EXPERT RAT	TERS. TO BE	COMPLETED WITHIN TWO CD AS SATISFACTORY OR	
	() 3.03 () 3.04 () 3.05 () 3.06 () 3.07	ALL CONNECTIONS TIC TO PROPER LENGTH ELECTRODE EXTENDS I CORRECT AMPERAGE CORRECT FLOW AT PROPER ANGLE METAL IS EVENLY DIS	L/8" TO 3/16"	BEYOND END OF GAS CUP	1

PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING	•
JSOE CODE NO(S)	UNIT 02	TIG	•
	TERMOB NO.	17-016	
1.00 CONDITION			
	1		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



	۵.	-
MISOE NO.		
PROGRAM METALWORK	ING DIVISION 02	WELDING & CUTTING
	UNIT 03	MIG
\$	TERMOB NO.	17-017
1.00 CONDITION		
* () 1.01 BLU	JEPRINT OF BUTT JOINT	
	JEPRINT OF LAP JOINT	♥
	JEPRINT OF TEE JOINT JEPRINT OF CORNER JOINT	•
() 1.04 BL	JEPRINT OF EDGE JOINT	•
() 1.06 MIG	G WELDING EQUIPMENT:	
	NSTANT VOLTAGE (POTENTIAL) POWE	ER SUPPLY
	C. GENERATOR POWER SUPPLY C. R. P. POWER SUPPLY	, -
	RE FEEDING MECHANISM	· · · · · · · · · · · · · · · · · · ·
	LDING GUN	B
ĘL	ECTRODE WIRE	
	IELDED GAS:	
	ARGON HELIUM	-
	OXYGEN	
	CARBON DIOXIDE	,
() 1.07 TA	BLES OF FILLER WIRE AND FEED	en en en en en en en en en en en en en e
() 1.08 TA	BLES OF CURRENT SETTINGS	
	BLE OF GAS AND FLOWS 16" STAINLESS STEEL	» •
	4" CARBON STEEL	
	2" ALUMINUM	
() 1.13 WE	LDING HAND TOOLS (TABLE T-3B)	
2.00 PERFORMANCE		
	e.	į.
GENERAL STATE	MENT OF PERFORMANCE AND RESULT	ING OUTCOME
() 2.01 WE	LD JOINT OR SEAM AS SPECIFIED : E FOLLOWING OPERATIONS:	IN PROPERTIAL EMPROTTING
TH	e rollowing organitons.	

		1	
*()	2.02	CHECK ALL HOSE AND CABLE CONNECTIONS
()		SELECT NOZZLE
()	2.04	THREAD WIRE THROUGH GUN
()	2.05	CLEAN OR INSPECT APERTURES OF CONTACT TUBE AND NOZZLE
()	2.06	POSITION WORK
()	2.07	SET WIRE SPEED AND FEED
()	2.08	SELECT SHIELDED GAS
()	2.09	TUPN ON SHIELDED GAS AND WATER COOLANT
()	2.10	WELD
			2 4

		MISOE NO.
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
JSOE CODE NO(S)	UNIT 03	MIG
	TERMOB NO.	17-017
		*

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

MISOE	NO.						2
PROGR	AM <u>METALV</u>	VORKING		DIVISION	1 02	WELDING	G & CUTTING
	*			UNIT	03	MIG	
				TERMOB 1	10.	17-017	(CONT'D)
3.00	EXTENT		τ	•	v		
	GENERAL ST	TATEMENT OF EXTENT OF TOUR OF TRATION TO APPROMOTE TOUR WITHING AS SATISFACTORY	ELDED WI OVAL OF N TWO HO	TH SMOOTI COARD OF URS WITH	INESS EXPE EACH	AND PRORT RATE:	OPER PENE- RS. YO BE
	() 3.02 () 3.03 () 3.04 () 3.05 () 3.06 () 3.07 () 3.08 () 3.09 () 3.10	CORRECT SPEED A	SELECTE DED AND N IONED IN AND FEED ORRECT O	D EXTENDING WELDING UTPUT	G COR	RECT DI	

								MISOE NO	-
PROGRAM	META	LWORKING			DIV	SION	02	WELDING &	CUTTING
USOE CODE	NO (S)			UNIT	r	03	MIG	
					TERN	OB NO).	17-017 (C	ONT'D)
3.00 EXT	ENT	· · · · · · · · · · · · · · · · · · ·		 .					
				<i>&</i> :					
GEN	ERAL	STATEMENT	OF	EXTENT	AND	EXTEN	T O	F RESULTING (OUTCOME

MISOE	NO.		,		
PROGRA	M METALWO	RKI N G	DIVISION 02	WELDING & C	
			UNIT 04	OXYGEN-ACET	YLENE
		v	TERMOB NO.	17-018	
	•				
1.00	CONDITION	ų.			
	() 1.07	BLUEPRINT OF LAP JOB BLUEPRINT OF TEE JOB BLUEPRINT OF CORNE BLUEPRINT OF EDGE GAS WELDING EQUIPM WELDING ROD 1/8" ROLLED STEEL	OINT OINT R JOINT JOINT ENT (TABLE T-3C) STOCK	·	·
2.00	PERFORMANO	CE			
" 	GENERAL S'	TATEMENT OF PERFORMA WELD A JOINT OR SE THE FOLLOWING OPER	AM AS SPECIFIED	NG OUTCOME IN BLUEPRINT	EMPLOYING
i	() 2.02 () 2.03 () 2.04 () 2.05	ADJUST TORCH	<i>y</i>		
3.00	EXTENT				
	GENERAL S () 3.01	TATEMENT OF EXTENT A JOINT OR SEAM IS V TRATION TO APPROVA COMPLETED WITHIN O JUDGED AS SATISFAC	VELDED WITH SMOO AL OF BOARD OF E ONE-HALF HOUR WI	THNESS AND PR XPERT RATERS. TH EACH OPERA	TO BE
•	() 3.02 () 3.03 () 3.04 () 3.05	FOR NEUTRAL FLAME IN CORRECT PLACES	TO COUNTERACT E	XPANSION DUE VENLY DISTRIE	TO HEAT

PROGRAM <u>METALWORKING</u>	DIVISION 02	WELDING &	CUTTING
USOE CODE NO(S)	UNIT 04	OXYGEN-ACI	ETYLENE
	TERMOB NO.	17-018	
c.			4
1.00 CONDITION			

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.					
PROGRA	AM M	ETALWO	RKING	DIVISION 02	WELDING 8	CUTTING
				UNIT 04	OXYGEN-AC	ETYLENE
	y			TERMOB NO.	17-019	
•						-
ė	¢.	•	Ÿ			
1.00	COND	ITION	4 ·		P.	
-	()	1.01	BLUEPRINT OF STOCK		a.	•
	()	1.02 1.03	1/8" ROLLED STEEL 1/2" ROLLED STEEL	STOCK	- A	٠
	()	1.04	GAS WELDING EQUIPM	MENT (TABLE T-3C))	↓ 65 * 6
	()	1.05	WELDING HAND TOOLS	S (TABLE T-3B)		
-						
2.00	PERF	ORMANO	E		٥	
		-			•	~ .
*						
	GENE		ATEMENT OF PERFORM	ANCE AND RESULTI	NG OUTCOME	MPTOVING
	()	2.01	FLAME CUT STOCK AS THE FOLLOWING OPEN	RATIONS:	PHOEFKINI D	M BOTTMO
ı	4	2 22	ADTUCE MANY CAUCE		1	%
	()	2.02 2.03	ADJUST TANK GAUGE ADJUST TORCH			
	()	2.03	PREHEAT METAL			
	()	2.05	CUT ALONG LINE			
		4				
3.00	- EXTÉ	NT	·			
~	•					7
∹ .						
			STOCK IS CUT AS S	AND EXTENT OF RE	SULTING OUT	PROVAL OF
2,	()	3.01	BOARD OF EXPERT R	ATERS TO BE CO	MPLETED WIT	HIN ONE-
5			HALF HOUR WITH EA	CH OPERATION JUD	GED AS SATI	SFACTORY
		9	OR UNSATISFACTORY			
			<u> </u>			
1	()	3.02	CORRECTLY ADJUSTE	D	*	ii
	()	3.03	FOR NEUTRAL FLAME		¥	
	()	3.04	AT CUTTING LINE S	TARTING POINT	HOR OVVCEN	
	().	3.05	ADHERING TO LINE	OSING HIGH LKESS	OKE ONIGEN	
				41	©.	

PROGRAM	METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE	· · · · · · · · · · · · · · · · · · ·	UNIT 04	OXYGEN-ACETYLENE
		TERMOB NO.	17-019
1.00 CON	DITION		

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

PROGR <i>I</i>	M <u>NETALWO</u> E		RKING	DIVÍSION 02 UNIT 01	WELDING & CUTTING OXYGEN-ACETYLENE
			,	TERMOB NO.	
1.00	COND	ITION			
	()	1.02		r (TABLE T-30	
2.00	PERF	ORMANC	E		2
		RAL ST	ATEMENT OF PERFORMANC HARD RESURFACE CAST TO ABRASION EMPLOYIN	TRON PIECE TO	O CKEATE KESISTANCE
•	()	2.03	ADJUST TANK GAUGES ADJUST TORCH SELECT WELDING ROD BUILD UP WORN AREA	, 6 , ,	• • • •
3.00	EXTE	en t O	&	- P	
	GENI	3.01	CAST IRON PIECE IS H BOARD OF EXPERT RATE HOURS WITH EACH OPER UNSATISFACTORY	ARD RESURFAC	OMPLETED WITHIN TWO
%	()	3.03	CORRECTLY ADJUSTED FOR NEUTRAL FLAME CORRECT ROD SELECTED METAL IS EVENLY DIST) PRIBUTED	

2	•	MISOE NO.			
		4			
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING			
USOE CODE NO(S)	UNIT 01	OXYGEN-ACETYLENE			
• • • • • • • • • • • • • • • • • • • •	TERMOB NO.	17-020	*		
	* .	*	4 vi		
1.00 CONDITION			4		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3 OO EXTENT

	MISOE	NO.			•	
	PROGR	AM METALW	ORKING	DIVISION 02	WELDING & CUTTIN	NG
			· ·	UNIT . Ol	OXYGEN-ACETYLENI	E
	*, * ⁵ 5,			TERMOB NO.	17-021	
			•	1		
				غر		
ř.	1,00	CONDITION	v 			
•	• •	() 1.01 () 1.02 () 1.03 () 1.04 () 1.05	BENCH GRINDER STAINLESS STEEL WE	ENT (TABLE T-3C) LDING RODS	en en en en en en en en en en en en en e	
		v		.pr	•	٠
	2,00	PERFORMANC	r.	٠		હ
	2,00	PER ONIANC	-	w ~ ~ ~ ~ * •	•	
5		() 2.02 () 2.03	ADJUST TORCH,	G THE FOLLOWING	OPERATIONS:	
		() 2.04				
**		() 2.05	BUILD UP WORN AREA	·		o ·
	3.00	EXTENT		•	••	•
		CENERAL ST	ATEMENT OF EXTENT A	ND EXTENT OF RES	ULTING OUTCOME	
·.	•	() 3.01		HARD RESURFACED TERS. TO BE COM	TO APPROVAL OF PLETED WITHIN TWO	ij
		() 3.02 () 3.03 () 3.04 () 3.05	FOR NEUTRAL FLAME	'ED		1

		MISOE NO	
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING	
USOE CODE NO(S)	UNIT 01	OXYGEN-ACETYLENE	_
	TERMOB NO.	17-021	_
			
1.00 CONDITION	·	ı	
4	•		
		-	
2.00 PERFORMANCE			
GENERAL STATEMENT OF P	PERFORMANCE AND RES	ULTING OUTCOME	*

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME



3.00 EXTENT

MISOE	NO.					
PROGR	AM	METALW	ORKING	DIVISION	02	WELDING & CUTTING
				UNIT	04	OXYGEN-ACETYLENE
•				TERMOB NO	0.	17-022
1.00	COND	ITION	٠			
	() () () ()	1.02 1.03 1.04	WORN CAST IRON PIECE GAS WELDING EQUIPMENT BENCH GRINDER WELDING RODS WELDING HAND TOOLS (T.		-	
2.00	PERF	ORMANC	E	-		
;						
	GENE	RAL ST	ATEMENT OF PERFORMANCE	AND RESU	LTING	OUTCOME
	()	2.01	REBUILD WORN CAST IROUPLOYING THE FOLLOWING			-MACHINING EM-
	() () ()	2.03 2.04	ADJUST TANK GAUGES ADJUST TORCH SELECT WELDING ROD BUILD UP WORN AREA			
3.00	EXTE	NT				;
			ATEMENT OF EXTENT AND WORN CAST IRON PIECE OF EXPERT RATERS. TO HALF HOURS WITH EACH OR UNSATISFACTORY	IS REBUIL BE COMPL	T TO ETED	APPROVAL OF BOARD WITHIN ONE AND ONE-
•	()	3.03 3.04	CORRECTLY ADJUSTED FOR NEUTRAL FLAME CORRECT ROD SELECTED METAL IS EVENLY DISTR	I BUTED		

PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE NO(S)	UNIT 04	OXYGEN-ACETYLENE
	TERMOB NO.	17-022
1.00 CONDITION		

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	ΝО.	· · · · · · · · · · · · · · · · · · ·				
PROGR	AM	METALW	ORKING	DIVISION	02	WELDING & CHTTING
				UNIT	04	OXYGEN-ACETYLENE
				TERMOB NO	o .	17-023
1.00	COND	ITION				
	() () ()	1.02	FRACTURED CAST IRON DISCOMMENDED TO THE PROPERTY OF THE PROPER	r (TABLE T		
2.90	PERF	ORMANC	E			
			ATEMENT OF PERFORMANC	E AND DECI	T.TT N	e OUTCOME
	GENE	2.01		G BY OXY-A	CETY	LENE WELDING EM-
♥)	()()()()	2.03		ţ		
3.00	EXT	ENT				
		ERAL ST	EXPERT RATERS. TO B	PAIRED TO E COMPLETE	APPR ED WI	OVAL OF BOARD OF
	()	3.05	CORRECTLY ADJUSTED FOR NEUTRAL FLAME CORRECT ROD SELECTED IN CORRECT PLACES TO SEAM IS SMOOTH WITH	COUNTERAC	CT EX	PANSION DUE TO HEAT



		MISOE NO.
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USCE CODE NO(S)	UNIT 04	OXYGEN-ACETY LENE
-	TERMOB NO.	17-023
1.00 CONDITION		The same
2.00 PERFORMANCE		
GENERAL STATEMENT OF PERFO	RMANCE AND RES	SULTING OUTCOME
i	i	

3.00 EXTENT



MISOE	NO			
PROGRA	AM METALWO	RKING	DIVISION 02	WELDING & CUTTING
			UNIT 05	BRAZING
			TERMOB NO.	17-024
1.00	CONDITION			
_,	() 1 01	BLUEPRINT OF SEAM	TO BE BRAZED	c ₉
	() 1.01 () 1.02	LOW CARBON STEEL		
	() 1.03	GAS WELDING EQUIPM	IENT (TABLE T-3C)	
	() 1.04	BRAZING RODS TABLE OF BRAZING F	ODS AND METALS	
	() 1.05		(TABLE 1-3B)	1
				5
2.00	PERFORMANC	î ····································		•
				,,,,,
	GENERAL SI	TATEMENT OF PERFORM	ANCE AND RESULTI	NG OUTCOME
	() 2.01		CIFIED IN BLUEPK	INT EMPLOYING THE
	() 2.02	ADJUST TANK GAUGES	5	
	() 2.03	ADJUST TORCH	D	
	() 2.04	SELECT BRAZING RO	U	
		BRAZE		* -
		-		
3.00	EXTENT			
				<u> </u>
		TATEMENT OF EXTENT	AND EXTENT OF RE	ONS AND PROPER PENETRA-
	() 3.01	MICKI MO ADDROVAT.	OF BOARD OF EXPE	RT RATERS. TO BE
		COMPLETED WITHIN	ONE HOUR WITH EA	CH OPERATION POPGED
		AS SATISFACTORY O	R UNSATISFACTORY	:
	() 3 02	CORRECTLY ADJUSTE	.D	•
	() 3.02 () 3.03	FOR NEUTRAL FLAME		•
	() 3.04	CORRECT ROD SELEC	TED	•
	() 3.05	CORRECTLY APPLIED ROD PREHEATED, BR	1	
	() 3.06	KOD LYDHDAIDDI		

	,	MISOE NO.
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING
USOE CODE NO(S)	UNIT 05	BRAZING
	TERMOB NO.	17-024
-		
1.00 CONDITION		•

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



1	MISOE	NO			-				
	PROGRA	AM ME	TALWOR	RKING	DIVISION 0	2 _	WELDING & CUTTING		
				J.	UNIT 0	5 _	BRAZING		
					TERMOB NO.	-	17-025		
•	1.00	CONDI	TION				f		
		() () () () ()	1.02 1.03 1.04 1.05	FRACTURED CAST IRON GAS WELDING EQUIPMENT BENCH GRINDER SOLVENTS BRAZING RODS WELDING HAND TOOLS FLUX	NT (TABLE T-3	C)			
	2.00	PERF	OR M ANCI	Ε					
	1	r <u> </u>					ν,		
	,	GENE:	RAL STA	ATEMENT OF PERFORMAN REPAIR FRACTURED CA FOLLOWING OPERATION	STING BY BRAZ	ring Zing	OUTCOME EMPLOYING THE		
		(°) () () () () () () ()		GRIND CASTING SELECT BRAZING ROD ADJUST TANK GAUGES ADJUST TORCH	,				
	3.00	EXTE	NT						
	i k	GENE	RAL ST	ATEMENT OF EXTENT AN FRACTURED CASTING I APPROVAL OF BOARD CONTROL ONE-JUDGED AS SATISFACT	S BRAZED WITH OF EXPERT RATH HALF HOURS WI	H NC ERS• ITH	TO BE COMPLETED EACH OPERATION		
,	•	()	3.02						
			3.04 3.05 3.06	CORRECTLY ADJUSTED FOR NEUTRAL FLAME SUFFICIENTLY FOR BEEVENLY BRAZE IS SMOOTH	ED RAZING		0.4		
ERIC Full Text Provided by ERI	~~	;					•		

		MISOE NO.	
PROGRAM METALWORKING	DIVISION 02	WELDING & CUTTING	
USOE CODE NO(S)	UNI T 05	BRAZING	
	TERMOB NO.	17-025	
1.00 CONDITION			
		•	

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO				ı	,
PROGRA	AM MI	METALWORKING		DIVISION		WELDING & CUTTING
				UNIT	06	RESISTANCE WELDING
				TERMOB NO	0.	17-026
1.00	COND	TION				nger
	()	1.01	BLUEPRINT OF SEAM OF WELDING HAND TOOLS (SPOT WELDING MACHINE	JOINT TO TABLE T-3B	BE SI	OT WELDED
2.00	PERF	ORMANCI	E			
	GENE	RAL ST.	ATEMENT OF PERFORMANCE SPOT WELD A SEAM OR OPERATIONS:	DE AND RESU JOINT EMPI	JLTING LOYING	G OUTCOME G THE FOLLOWING
ů	-() ()	2.039	CLAMP SEAM OR JOINT SET HEAT SPOT WELD DESIRED LO		ON .	
3.00	EXTE	CNT		9		
	GENE	ERAL ST	PATEMENT OF EXTENT AN SEAM OR JOINT SPOT TO APPROVAL OF BOAR WITHIN ONE-HALF HOU SATISFACTORY OR UNS	WELDED WIT D OF EXPER' R WITH EAC	H NO T RAT H OPE	ERS. TO BE COMPLETED
	()	3.02 3.03 3.04		ON	č.	

	MISOE NO.				
PROGRAM METALWORKING		WELDING & CUTTING			
USOE CODE NO(S)	UNIT 06	RESISTANCE WELDING	_		
	TERMOB NO.	17-026	_		
· <u> </u>		0			
1.00 CONDITION					
	-				
	•	* * * * * * * * * * * * * * * * * * *			
2.00 PERFORMANCE					
GENERAL STATEMENT OF PE	RFORMANCE AND RES	ULTING OUTCOME			
		7			
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		•			
3 ΛΛ ΕΧΨΈΝΨ.					

MISOE	NO.		, ,	⇒	3	1,,
PROGRA	M <u>METALW</u>	ORKING	DIVISIO	N 03	HEAT TREATING	
			UNIT	01	ANNEAL	
	• **	÷	TERMOB	NO.	17-027	
		•		ç.v	r e de	•
1.00	CONDITION				· .	
ε	() 1.01 () 1.02 () 1.03 () 1.04 () 1.06	BASIC METALWORKE B ANGLE PLATE (TOO) HEAT TREATMENT TO FURNACE OR TORCH	R'S HAND TOOI L STEEL) ABLES	.S (TA	BLE T-3)	g.
2.00	PERFORMAI	NCE	٥.	<i>\$</i>		
4	GENERAL S	STATEMENT OF PERFOR ANNEAL ANGLE PLA	MANCE AND RES	SULTIN LLOWIN	G OUTCOME G PROCEDURE:	
	() 2.0 () 2.0	2 HEAT ANGLE PLATE 3 LEAVE ANGLE PLAT	E TO COOL			
3.0₺	EXTENT			j.		
	GENERAL () 3.0	MO DE COMPLETED	EL ANGLE PLAT O APPROVAL O WITHIN THREE	E BROU F BOA! HOURS	BULTING OUTCOME JGHT BACK TO ITS RD OF EXPERT RATE B WITH EACH STEP DRY OR UNSATISFAC	OI.
	() 3.0 () 3.0	2 SLIGHTLY ABOVE O 3 ANGLE PLATE COOL OFF FURNACE	CRITICAL RANG LED SLOWLY TO	E, HE	ATED UNIFORMLY TEMPERATURE IN	ru rned

		MISOE NO.
PROGRAM METALWORKING	DIVISION 03	HEAT TREATING
USOE CODE NO(S)	UNIT. 01	ANNEAL
	TERMOB NO.	17-027
<u> </u>		
1.00 CONDITION		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO			
PROGRA	AM MI	ETALWO		
			UNIT 01 ANNEAL	
			TERMOB NO. 17-028	,
1.00	COND	TION	•	
ŀ	() () ()	1.02 1.03	BASIC METALWORKER'S HAND TOOLS (TABLE T-3) HEAT TREATMENT TABLES FURNACE WELDED PIECE, ABOUT 5 POUNDS	
2.00	PERF	ORMANC		
	GENE	RAL ST	ATEMENT OF PERFORMANCE AND RESULTING OUTCOME NORMALIZE WELDED PIECE EMPLOYING THE FOLLOWING OPERA- TIONS:	
• •	()	2.02	HEAT PIECE SET PIECE OUT TO COOL	
3.00	EXTE	ENT		
	GENE	ERAL ST	ATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME WELDED PIECE IS NORMALIZED TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN ONE HOUR WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTOR	Y
	()		TO 100°F ABOVE UPPER CRITICAL TEMPERATURE PIECE LEFT TO COOL TO ROOM TEMPERATURE IN AIR	

PPOGRAM METALWORKING DIVISION 03 HEAT TREATING	
Program METALMORKING DIVISION 03 MEM TREATMO	
USOE CODE NO(S) UNIT 01 ANNEAL	
TERMOB NO. 17-028	
1.00 CONDITION	

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO			
PROGRA	AM <u>METALW</u>	ORKING		DEEP HARDENING
1.00	CONDITION		TERMOB NO.	17-029
	() 1.02 () 1.03 () 1.04 () 1.05	BLUEPRINT OF CENTER BASIC METALWORKER'S CENTER PUNCH FURNACE QUENCHING MEDIUM HEAT TREATMENT TABLE	HAND TOOLS (TA	ABLE T-3)
2.00	PERFORMANC	E		
	GENERAL ST	ATEMENT OF PERFORMAN HARDEN CENTER PUNCH	CE AND RESULTING BY THE FOLLOW	NG OUTCOME ING PROCEDURE:
	() 2.02 () 2.03	HEAT CENTER PUNCH I	N FURNACE R PUNCH	
3.00	EX ^{**} EN T			<i>y</i> .
	GENERAL ST	ATEMENT OF EXTENT AN CENTER PUNCH IS HAR RATERS. TO BE COMP STEP OF THE PROCEDU SATISFACTORY	DENED TO APPROV LETED WITHIN T	VAL OF BOARD OF EXPERT WO HOURS WITH EACH
	()—3.02 () 3.03	TO CRITICAL TEMPERA QUENCHED IN MEDIUM	TURE AS SPECIFIED I	N HEAT TREATMENT TABLES

			MISOE	NO.
PROGRAM METALWORKING USOE CODE NO(S)	DIVISION UNIT			TREATING HARDENING
	TERMOB NO	٥.	17-02	29
1.00 CONDITION				
		•		
	Ĩ		,	
2.00 PERFORMANCE				
GENERAL STATEMENT OF PERFOR	MANCE AND	RESU	LTING	OUTCOME
3.00 EXTENT				
			•	
4				



ISOE	NO.				
ROGR	AM META	ALWORKING	_ DIVISION	03	HEAT TREATING
			UNIT	03	CASE HARDENING
			TERMOB NO) .	17-030
.00	CONDITIO	DEI			
	() 1.		ICATIONS FOR CA	RBUR	RIZING
	() 1.		M		V
	() 1.	04 LOW CARBON STEE	L		
	() 1. () 1. (06 SEALED BOX			
	() 1.		ER'S HAND TOOLS	(TA	ABLE T-3)
.00	PERFORM	ANCE			
			100		·
	GENERAL	STATEMENT OF PERFO	RMANCE AND RESU	LTIN	NG OUTCOME
	() 2.	01 CASE HARDEN LOW METHOD TO THE F	CARBON TOOL BI	T BY	THE CARBURIZING
		METHOD TO THE F	OLLOWING PROCED	U RE:	·
Ģ.	() 2	02 PACK TOOL BIT I	N ROY		
•	() 2.	03 SURROUND THE TO	OL BIT WITH CAR	BURI	ZING MATERIAL
	() 2.				
7	• •	<pre>05 HEAT IN FURNACE 06 SHUT OFF FURNAC</pre>		COOI	
	() 2.	07 REMOVE PIECES F	ROM BOX AND REH		
		08 QUENCH	ICII		
	() 2.	09 REHEAT AND QUEN	ich		
3.00	EXTENT				
		STATEMENT OF EXTEN			

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 TOOL BIT HARDENED TO SPECIFICATIONS AND APPROVAL OF
BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN SEVEN
HOURS WITH EACH STEP OF THE PROCEDURE JUDGED AS
SATISFACTORY OR UNSATISFACTORY

()	3.02	TIGHTLY
()	3.03	CARBURIZING MATERIAL ENTIRELY SURROUNDS TOOL BIT
		AIR TIGHT
()	3.05	TO +5° FOR SIX HOURS
()	3.06	FURNACE TURNED OFF AND WORK PIECES ALLOWED TO COOL
()	3.07	WORK PIECES REHEATED TO 1650°F +5°
()	3.08	OUENCHED
in	3.09	REHEATED TO 1450°F +5° AND QUENCHED



		MISOE NO.
PROGRAM METALWORKING	DIVISION 03	HEAT TREATING
USOE CODE NO(S)	UNIT 03	CASE HARDENING
•	TERMOB NO.	17-030
1.00 CONDITION	4	
•		
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•		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO.	
PROGR	AM <u>METALWO</u>	RKING DIVISION 03 HEAT TREATING
		UNIT 04 TEMPERING
		TERMOB NO. 17-031
	# c	
1.00	CONDITION	
	() 1.03 () 1.04 () 1.05	BLUEPRINT OF HARDENED CENTER PUNCH BASIC METALWORKER'S HAND TOOLS (TABLE T-3) HEAT TREATMENT TABLES FURNACE QUENCHING MEDIUM COLOR CHARTS
2.00	PERFORMANC	E
	GENERAL ST	ATEMENT OF PERFORMANCE AND RESULTING OUTCOME TEMPER HARDENED CENTER PUNCH TO THE FOLLOWING PROCEDURE
	() 2.02 () 2.03	HEAT CENTER PUNCH QUENCH CENTER PUNCH
3.00	EXTENT :	
	GENERAL ST	ATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME CENTER PUNCH DOES NOT SHATTER UNDER USE AND POINT RETAINING ITS SHARPNESS MEETING APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN THIRTY-FIVE MINUTES WITH EACH STEP OF THE PROCEDURE JUDGED AS SATISFACTORY OR UNSATISFACTORY
	() 3.02 () 3.03	HEATED TO CORRECT TEMPERATURE BELOW CRITICAL RANGE IN CORRECT QUENCH MEDIUM AS SPECIFIED IN HEAT TREATMENT TABLES

	MISOE NO.					
PROGRAM METALWORKING	DIVISION 03	HEAT TREATING				
USOE CODE NO(S)	UNIT 04	TEMPERING _♥				
	TERMOB NO.	17-031	<u> </u>			
	ę					
1.00 CONDITION		اند				

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO.	· · · · · · · · · · · · · · · · · · ·		1		
PROGRA	M M:	etalwo <u>f</u>	RKING	DIVISION	03	HEAT TREATING
			v v	UNIT	05	HARDNESS TESTING
			·	TERMOB NO	٥.	17-032
1.00	COND	ITION				
	()	1.01	BASIC METALWORKER HARDNESS TABLES ROCKWELL HARDNESS HEAT TREATED PIEC	TESTER		
2.00	PERF	ORMANC	E			
	GENE	ERAL ST	ATEMENT OF PERFORM PERFORM PENETRATI STEEL TO THE FOLL	ON TEST ON HE	SAT I	G OUTCOME PREATED PIECE OF
	()	2.02	TESTER			IN ROCKWELL HARDNESS
٠	()	2.04	APPLY MINOR LOAD APPLY MAJOR LOAD RELEASE MAJOR LOA READ HARDNESS ON	מע		
3.0 0	EXT	ENT				
	GEN ()	ERAL ST	TO WITHIN TWO PO	TREATED PIEC INTS ON THE R	E OF OCKW TES	PIEET ID CURCORUIDS
	()	3.02 3.03 3.04 3.05 3.06	ZERO POINT SET A MAJOR LOAD APPLI MAJOR LOAD RELEA	T MINOR LOAD ED SED WHEN DIAL	STO	PS

			MISOE NO.	_
PROGRAM METALWORKING	DIVISION	03	HEAT TREATING	_
USOE CODE NO(S)	UNIT	05	HARDNESS TESTING	
·	TERMOB NO).	17-032	_
1.00 CONDITION				
•			:	
2.00 PERFORMANCE				
GENERAL STATEMENT OF PERFOR	MANCE AND	RESU	LTING OUTCOME	
GENERALE DILLEMENT OF THE OF				
			•	
		•		

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

3.00 EXTENT

MISOE	NO		
PROGRA	M ME	ETALWOI	DIVISION 04 SHEETMETAL FABRICATION
			UNIT 01 INDUSTRIAL EQUIPMENT
•			TERMOB NO. 17-033
и			
1.00	CONDI	TION	
	()	1.02 1.03 1.04 1.05 1.06 1.07	DIMENSIONED ISOMETRIC DRAWING OF BOX WITH SLIDING TOP BASIC METALWORKER'S HAND TOOLS (TABLE T-3) PAN BRAKE BENCH STAKES POWER SHEARS 26-GAUGE GALVANIZED IRON GAS WELDING EQUIPMENT (TABLE T-3C) WELDING HAND TOOLS (TABLE T-3B) BASIC METALWORKER'S HAND TOOLS (TABLE T-3)
2.00	PERF	ORMANC	E :
	GENE	RAL ST	ATEMENT OF PERFORMANCE AND RESULTING OUTCOME FABRICATE A BOX WITH A SLIDING TOP AS SPECIFIED IN DRAWING EMPLOYING THE FOLLOWING OPERATIONS:
		2.03	COMPUTE CUTTING SIZE LAY OUT FOR BENDS AND NOTCHES CUT OUT AND NOTCH SPOT WELD LAPS ASSEMBLE
3.00	EXTE	INT	
			ATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
	GENE	3.01	BOX WITH SLIDING TOP IS FABRICATED WITHIN DRAWING TOLERANCES TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN THREE HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY
	()()()	3.02 3.03 3.04 3.05 3.06	TO +1/32 TO +1/32 TO +1/32 TO +1/32 WITHOUT BUCKLING MATERIAL SLIDING TOP OPERATES PROPERLY

Company of the Compan		MISOE NO.	
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRI	CATION
USOE CODE NO(S)	UNIT 01	INDUSTRIAL EQUIP	MENT
	TERMOB NO.	17-033	
	o	·	دي.
1.00 CONDITION			

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.		±.	· · ·	
PROGRA	M <u>METALWO</u>	RKING	DIVISION 04	SHEETMETAL FABRICATI	او
		<u> </u>	UNIT 01	INDUSTRIAL EQUIPMENT	_
J		ć	TERMOB NO.	17-034	_
,	•	•	ė		•
1.00	CONDITION	٠٠		•	
	() 1.06 () 1.07 () 1.08 () 1.09	DIMENSIONED ISOMETR BASIC METALWORKER'S 20-GAUGE GALVANIZED POWER SHEAR CORNICE BRAKE BAP FOLDER NOTCHER ROLL FORMING MACHIN PAN BRAKE SOLDERING EQUIPMENT	HAND TOOLS (TIRON	TOOL TRAY PABLE T-3)	
	() 1.10	•	·		
1 2.00	PERFORMANO	CE °	1)
,					/
· · · · · · · · · · · · · · · · · · ·	GENERAL ST	FATEMENT OF PERFORMAN FABRICATE A TOOL TR THE FOLLOWING OPERA	AY AS SPECIFII	ING OUTCOME ED IN DRAWING EMPLOYI	NG
	() 2.03 () 2.04 () 2.05	COMPUTE CUTTING SIZ LAY OUT FOR BENDS A CUT OUT AND NOTCH SPOT WELD LAPS ASSEMBLE	E ND NOTCHES		
			(interest	•	*
3.00	EXTENT				
	GENERAL S	TATEMENT OF EXTENT AN TOOL TRAY IS FABRIC WITH APPROVAL OF BO PLETED WITHIN THREE OPERATION JUDGED AS	DARD OF EXPERT E AND ONE-HALF	RATERS. TO BE COM- HOURS WITH EACH	P
	() 3.02 () 3.03 () 3.04 () 3.05 () 3.06	TO +1/32 TO +1/32 WITHOUT BUCKLING MA	ATERIAL LDERED SEAMS S	MOOTH	٠



	į	MISOE NO.
PROGRAM <u>METALWORKING</u>	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 01	INDUSTRIAL EQUIPMENT
	TERMOB NO.	17-034
1.00 CONDITION		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO.		

PROGR	AMi	METALW	ORKING	DIVISION 0	4 SHEETMETAL FABRICATI
				UNIT 0	1 INDUSTRIAL EQUIPMENT
ap v			•	TERMOB NO.	17-035
				\$	
1.00	CONDI	TION			
	()	1.01	DIMENSIONED ISOMETH COVER, HASP, AND HA		TOOL BOX WITH HINGED
	()	1.02	BASIC METALWORKER'S		(TABLE T-3)
	()		18-GAUGE GALVANIZE	IRON	
	()	-	POWER SHEAR		
	()		CORNICE BRAKE		
	()		BAR FOLDER		
			PAN BRAKE GAS WELDING EQUIPME	NT (TABLE T-3	ac)
	()		SPOT WELDING MACHIN		,
2.00	PERF	ORMANC	E '	<u>.</u>	
		·			
	GENE	RAL ST	ATEMENT OF PERFORMAN	ICE AND RESULT	ING OUTCOME
	GENEI	RAL ST	ATEMENT OF PERFORMANT FABRICATE A TOOL BOTTHE FOLLOWING OPERA	X AS SPECIFIE	TING OUTCOME ED IN DRAWING EMPLOYING
	GENEI	2.01	FABRICATE A TOOL BOTTHE FOLLOWING OPERA	X AS SPECIFIE	CING OUTCOME TO IN DRAWING EMPLOYING
	()	2.02	FABRICATE A TOOL BOTTHE FOLLOWING OPERA	X AS SPECIFIE ATIONS:	CING OUTCOME ED IN DRAWING EMPLOYING
	()	2.01 2.02 2.03 2.04	THE FOLLOWING OPERA COMPUTE CUTTING SIZE LAY OUT FOR BENDS A CUT OUT AND NOTCH	X AS SPECIFIE ATIONS:	CING OUTCOME ED IN DRAWING EMPLOYING
•	()	2.01 2.02 2.03 2.04 2.05	FABRICATE A TOOL BOTTHE FOLLOWING OPERATOR OF THE COMPUTE CUTTING SIZE LAY OUT FOR BENDS A CUT OUT AND NOTCH BEND	AS SPECIFIENTIONS: LE AND NOTCHES	ED IN DRAWING EMPLOYING
•	()	2.01 2.02 2.03 2.04 2.05 2.06	FABRICATE A TOOL BOTTHE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORMAT OF THE FORM	AS SPECIFIED TO SERVICE AND NOTCHES BOX AND COVE	ED IN DRAWING EMPLOYING
•	()	2.01 2.02 2.03 2.04 2.05 2.06 2.07	FABRICATE A TOOL BOTTHE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OP	AS SPECIFIED ATIONS: LE AND NOTCHES BOX AND COVER AND BOY	ED IN DRAWING EMPLOYING
•	()()()()()()	2.01 2.02 2.03 2.04 2.05 2.06 2.07 2.08	FABRICATE A TOOL BOTHE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OF THE FOLLOWING OF THE FOLLOWING OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OPERAT	AS SPECIFIED ATIONS: LEAND NOTCHES BOX AND COVER AND BOY	ED IN DRAWING EMPLOYING
	()	2.01 2.02 2.03 2.04 2.05 2.06 2.07 2.08	FABRICATE A TOOL BOTTHE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OP	AS SPECIFIED ATIONS: LEAND NOTCHES BOX AND COVER AND BOY	ED IN DRAWING EMPLOYING
	()()()()()()	2.01 2.02 2.03 2.04 2.05 2.06 2.07 2.08	FABRICATE A TOOL BOTHE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OF THE FOLLOWING OF THE FOLLOWING OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OF THE FOLLOWING OPERATOR OPERAT	AS SPECIFIED ATIONS: LEAND NOTCHES BOX AND COVER AND BOY	ED IN DRAWING EMPLOYING

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 TOOL BOX IS FABRICATED TO WITHIN DRAWING TOLERANCES AND ALL MOVING PARTS ARE OPERATING PROPERLY TO APPROVAL OF EOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN THREE HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

()	3.02	TO $+1/32$
()	3.03	TO $\pm 1/32$
()	3.04	TO $\pm 1/32$
()	3.05	TO $\pm 1/32$
()	3.06	WELD SMOOTH WITH PROPER PENETRATION
()	3.07	PROPERLY ALIGNED AND WITHOUT BUCKLING MATERIAL
()	3.08	PROPERLY ALIGNED AND WITHOUT BUCKLING MATERIAL
()	3.09	ALL WELDS AND SHARP EDGES SMOOTH

- DIMENSIONED ISOMETRIC DRAWING OF TOOL BOX WITH HINGED 1.01 () COVER, HASP, AND HANDLES BASIC METALWORKER'S HAND TOOLS (TABLE T-3) 1.02 18-GAUGE GALVANIZED IRON 1.03 1.04 POWER SHEAR 1.05 CORNICE BRAKE 1.06 BAR FOLDER 1.07 PAN BRAKE) 1.08 GAS WELDING EQUIPMENT (TABLE T-3C) 1.09 SPOT WELDING MACHINE
- 2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

() 2.01 FABRICATE A TOOL BOX AS SPECIFIED IN DRAWING EMPLOYING THE FOLLOWING OPERATIONS:

() 2.02 COMPUTE CUTTING SIZE
() 2.03 LAY OUT FOR BENDS AND NOTCHES
() 2.04 CUT OUT AND NOTCH
() 2.05 BEND
() 2.06 GAS WELD CORNERS OF BOX AND COVER
() 2.07 SPOT WELD HINGES TO COVER AND BOX
() 2.08 SPOT WELD HASP AND HANDLES
() 2.09 FINISH

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 TOOL BOX IS FABRICATED TO WITHIN DRAWING TOLERANCES AND ALL MOVING PARTS ARE OPERATING PROPERLY TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN THREE HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

() 3.02 TO +1/32 () 3.03 TO +1/32 () 3.04 TO +1/32 () 3.05 TO +1/32 () 3.06 WELD SMOOTH WITH PROPER PENETRATION () 3.07 PROPERLY ALIGNED AND WITHOUT BUCKLING MATERIAL () 3.08 PROPERLY ALIGNED AND WITHOUT BUCKLING MATERIAL () 3.09 ALL WELDS AND SHARP EDGES SMOOTH

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		MIBOLI NO.
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 01	INDUSTRIAL EQUIPMENT
	TERMOB NO.	17-035

1.00 CONDITION		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

PROGRA	AM METALWO	ORKING	D2.	SHEETMETAL FABRICATIO
			UNIT 02	HOUSEHOLD EQUIPMENT
		1	TERMOB NO.	17-036
			* u	
1.00	CONDITION			
	() 1.01	DIMENSIONED ISOMET	RIC DRAWING OF	FUNNEL WITH WIRE
		EDGE SEAM AND GROO)VE	
	() 1.02 () 1.03			
	() 1.04	BASIC METALWORKER	S HAND TOOLS (T	CABLE T-3)
	() 1.05	BENCH STAKES	ım /mxbir m3D)	
	() 1.06 () 1.07	SOLDERING EQUIPMEN	IT (TABLE 1-3D)	
	() 1.07	DIOCK .		
		· ·		
2.00	PERFORMAN(CE ;		
		,	·	
Pa .	GENERAL CO	TATEMENT OF PERFORM	NICE AND DECILLE	ING OUTCOME
	GENERAL S.	FABRICATE A FUNNEL	L AS SPECIFTED	IN DRAWING EMPLOYING
	() 2.01	THE FOLLOWING OPER	RATIONS:	
				·
	. () 2 02	COMPUTE CUTTING S	r z e	
		CUT OUT AND NOTCH		
	() 2.04	TURN AND FORM HEM		
	() 2.05 () 2.06		NEL AND SPOUT STSH GROOVE SEAM	и
	() 2.00			•
	() 2.08	WIRE EDGE	•	
	() 2.09		r k	
	() 2.10 () 2.11			
	() 2.12		•	
	,			
2 20	FT 1 / FT F1 8 7 FT			
3.00	EXTENT	d		
		·		
			AND EVERNE OF D	ESTITUTING OUTCOME
	GENERAL S	TATEMENT OF EXTENT	TED TO WITHIN D	RAWING TOLERANCES TO
	, 5.01	APPROVAL OF BOARD	OF EXPERT RATE	RS. TO BE COMPLETED
		WITHIN THREE HOUR		RATION JUDGED AS
	ľ	SATISFACTORY OR U	NSATISFACTORY	
	<u> </u>	_ 		
	() 3.02			
	() 3.03			•
,	() 3.04 () 3.05		TH NO BOX	
C	() 3.06	TO +1/32	· · · · · · · · · · · · · · · · · · ·	
by ERIC		S M OŌTH		



```
() 1.03 MANUAL FORMING ROLLS
() 1.04 BASIC METALWORKER'S HAND TOOLS (TABLE T-3)
() 1.05 BENCH STAKES
() 1.06 SOLDERING EQUIPMENT (TABLE T-3D)
() 1.07 STOCK
```

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

() 2.01 FABRICATE A FUNNEL AS SPECIFIED IN DRAWING EMPLOYING THE FOLLOWING OPERATIONS:

```
( ) 2.02 COMPUTE CUTTING SIZE
( ) 2.03 CUT OUT AND NOTCH
( ) 2.04 TURN AND FORM HEM AND EDGE
( ) 2.05 ROLL AND FORM FUNNEL AND SPOUT
( ) 2.06 HOOK EDGES AND FINISH GROOVE SEAM
( ) 2.07 TURN EDGE FOR WIPING
( ) 2.08 WIRE EDGE
( ) 2.09 SOLDER SPOUT LAP
( ) 2.10 TACK SOLDER SPOUT
( ) 2.11 SOLDER GROOVE SEAM
( ) 2.12 FINISH
```

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 FUNNEL IS FABRICATED TO WITHIN DRAWING TOLERANCES TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN THREE HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

()	3.02	TO +1/32			
()	3.03	TO $\mp 1/32$			
()	3.04	SMOOTH AND TIGHT			
()	3.05	EDGES STRAIGHT WITH NO BOX			
()	3.06	TO +1/32			
()	3.07	SMOOTH			
()	3.08	EDGE WIRED			
()	3.09				
()	3.10	IN CORRECT PLACES TO COUNTERACT EXPAN	SION D	UE TO) HEAT
()	3.11	SMOOTH WITH NO EXCESS			
()	3.12	ALL SHARP EDGES SMOOTH			

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PROGRAM <u>METALWORKI</u>	NG	DIVISION 04	SHEETMETAL FABRICATION
JSOE CODE NO(S)		UNIT 02	HOUSEHOLD EQUIPMENT
	1 2	TERMOB NO.	17-036
1 00 covernor		·	

MISOE NO.

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



PROGRA	AM M	ETALWO]	RKING	DIVISION	04	SHEETMETAL FABRICATI
e in the second		* *		UNIT	02	HOUSEHOLD EOUIPMENT
			, a	TERMOB NO).	17-037
		•				
1 0 0	CONDI	TT ON				
1.00	COMD			-a postitud	OF (יַרווא פיני האספים דו
n	()		DIMENSIONED ISOMETR WASTEBASKET WITH SP BASIC METALWORKER'S	LIT TUBING	EDG1	I NG
	()	1.02	CORNICE BRAKE	MAND TOOLS	, (1.2	ABBB 1 3/
			POWER SHEAR		٠	
*	()	1.05	SOLDERING EQUIPMENT			
	7.5	1 06	26-GAUGE GALVANIZED	IRON		-
+2	(1.07	GAS WELDING EQUIPME	NT (TABLE T	-3C)
1	(j	1.08	GAS WELDING EQUIPME WELDING HAND TOOLS	(TABLE T-3B	()	
4				**		:
		ODM 2210		* ·		
2.00	PERF	ORMANC	. E			
				B		
i.						
or .	GENE	RAL ST	ATEMENT OF PERFORMAN	ICE AND RESU	LTI	NG OUTCOME
		2.01	EXPOTONTE A SOUARE.	. TAPERED WA	STE.	BASKET WITH SPLIT
			TUBING EDGING AS SI	ECTFIED IN	DRA	WING EMPLOYING THE
	ļ		FOLLOWING OPERATION	NS:		
)					
	L					
		2.02	COMPUTE CUTTING SIZ			
	()	2.02	COMPUTE CUTTING SIZ	ZE		
	()	2.03	LAY OUT BENDS, NOT	ZE		
	()	2.03 2.04	LAY OUT BENDS, NOTO	ZE		
•	()	2.03 2.04 2.05	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND	ZE CHES, ETC.		
•	()	2.03 2.04 2.05 2.06 2.07	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'SOLDER BODY TO BOT'S	ZE CHES, ETC. TO BOTTOM		,
^	() () () ()	2.03 2.04 2.05 2.06 2.07 2.08	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS (ZE CHES, ETC. TO BOTTOM TOM OF PIPE		
	() () () ()	2.03 2.04 2.05 2.06 2.07 2.08	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIE	ZE CHES, ETC. TO BOTTOM TOM OF PIPE		,
~	() () () ()	2.03 2.04 2.05 2.06 2.07 2.08	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY SOLDER BODY TO BOTO TACK WELD CORNERS OF PINTACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
	() () () ()	2.03 2.04 2.05 2.06 2.07 2.08	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIN TACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
	()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIN TACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIN TACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
3.00	()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIN TACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PIN TACK, SOLDER SPLIT	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BO	DΥ	
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PINTACK, SOLDER SPLIT SOLDER PIPE TO BOD'S	CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BOTTOM		
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PINT TACK, SOLDER SPLIT SOLDER PIPE TO BOD'S	ZE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY	F RE	SULTING OUTCOME
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOTO TACK WELD CORNERS OF PINT TACK, SOLDER SPLIT SOLDER PIPE TO BODO TACK PIPE TO BODO TACK PIPE TO BODO TACK PIPE TO BODO	CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF	F RE	MING LOPEKWINCED TO
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOT' TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BOD' FATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD	CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOTY TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BODY TATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOT' TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BOD' FATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOTY TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BODY TATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11 ENT	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PINT TACK, SOLDER SPLIT SOLDER PIPE TO BOD'S PATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W SATISFACTORY OR UN	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11 ENT	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOT' TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BOD' FATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W SATISFACTORY OR UN	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11 ENT ERAL ST 3.01	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY 'S SOLDER BODY TO BOT'S TACK WELD CORNERS OF PINT TACK, SOLDER SPLIT SOLDER PIPE TO BOD'S PATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W SATISFACTORY OR UN TC +1/32 TO +1/32	TE CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BODY ND EXTENT OF ATED WITHIN OF EXPERT RE	F RE DRA ATER	S. TO BE COMPLETED
3.00	() () () () () ()	2.03 2.04 2.05 2.06 2.07 2.08 2.09 2.10 2.11 ENT	LAY OUT BENDS, NOTO CUT OUT AND NOTCH BEND TACK, SOLDER BODY TO BOT' TACK WELD CORNERS OF PIT TACK, SOLDER SPLIT SOLDER PIPE TO BOD' TATEMENT OF EXTENT A WASTEBASKET FABRIC APPROVAL OF BOARD WITHIN SIX HOURS W SATISFACTORY OR UN TC +1/32 TO +1/32 TO +1/32 TO +1/32	CHES, ETC. TO BOTTOM TOM OF PIPE PE PIPE TO BOD Y ND EXTENT OF ATED WITHIN OF EXPERT RE ITH EACH OPE SATISFACTORS	F RE DRA ATER ERAT Y	S. TO BE COMPLETED

```
() 1.03 CORNICE BRAKE

() 1.04 POWER SHEAR

() 1.05 SOLDERING EQUIPMENT

() 1.06 26-GAUGE GALVANIZED IRON

() 1.07 GAS WELDING EQUIPMENT (TABLE T-3C)

() 1.08 WELDING HAND TOOLS (TABLE T-3B)
```

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

() 2.01 FABRICATE A SQUARE, TAPERED WASTEBASKET WITH SPLIT

TUBING EDGING AS SPECIFIED IN DRAWING EMPLOYING THE
FOLLOWING OPERATIONS:

```
() 2.02 COMPUTE CUTTING SIZE
() 2.03 LAY OUT BENDS, NOTCHES, ETC.
() 2.04 CUT OUT AND NOTCH
() 2.05 BEND
() 2.06 TACK, SOLDER BODY TO BOTTOM
() 2.07 SOLDER BODY TO BOTTOM
() 2.08 TACK WELD CORNERS OF PIPE
() 2.09 WELD CORNERS OF PIPE
() 2.10 TACK, SOLDER SPLIT PIPE TO BODY
() 2.11 SOLDER PIPE TO BODY
```

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 WASTEBASKET FABRICATED WITHIN DRAWING TOLERANCES TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN SIX HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

```
( ) 3.02 TO +1/32

( ) 3.03 TO +1/32

( ) 3.04 TO +1/32

( ) 3.05 TO +1/32

( ) 3.06 IN CORRECT PLACES TO COUNTERACT EXPANSION DUE TO HEAT

( ) 3.07 SMOOTH WITH NO EXCESS

( ) 3.08 IN CORRECT PLACES TO COUNTERACT EXPANSION DUE TO HEAT

( ) 3.09 WELD SMOOTH WITH PROPER PENETRATION

( ) 3.10 IN CORRECT PLACES TO COUNTERACT EXPANSION DUE TO HEAT

( ) 3.11 SMOOTH WITH NO EXCESS
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				MISOE NO.
PROGRAM M	ETALWORKING	DIVISI	ON 04	SHEETMETAL FABRICATION
USOE CODE	NO(S)	UNIT	02	HOUSEHOLD EQUIPMENT
		TERMOB	NO.	17-037
1.00 COND	ITION			
•		~	ø	
2.00 PERE	FORMANCE			
GENI	ERAL STATEMENT	OF PERFORMANCE A	ND RES	SULTING OUTCOME

3.00 EXTENT



MISOE	NO.				•	
PROGRAM ME		METALWORKING		DIVISIO	N 04	SHEETMETAL FABRICATION
			υ	UNIT	02	HOUSEHOLD EQUIPMENT
	•	d	<i>₩</i>	TERMOB 1	NO.	17-038
		*				
1.00	CONI	DITION				
	()	1.01	DIMENSIONED ISOMETR			ECTANGULAR TRASHBAG
	()		BASIC METALWORKER'S	HAND TOOLS	S (TA	BLE T-3)
			BRAKES POWER SHEAR			
	()	1.05	HAND PUNCH 26-GAUGE GALVANIZED	T RON		
	()	1.07	SOLDERING EQUIPMENT	(TABLE T-	3D)	
		-		~	14	
2.00	PERF	FORMANC	PE ,			
	CENT	DAT CM	ATEMENT OF PERFORMAN	CE AND RESI	ווד.יידו	G OUTCOME
	()	2.01	FABRICATE A TRASHBA TO THE FOLLOWING PR	G HOLDER A	S SPE	CIFIED IN DRAWING
,	()		LAY OUT FOR BENDS,	E NOTCHES, E	TC.	
	()	2.04				
	()	2.06				
	()	2.07	SOUDER BOTTOM TO BO			
3.00	EXT	ENT	•			
	CENT	EDAT CT	PATEMENT OF EXTENT AN	D EXTENT O	F RES	SULTING OUTCOME
\	()	3.01		RICATED WI	THIN	DRAWING TOLERANCES
ì			PLETED WITHIN FIVE	HOURS WITH	EACH	
			AS SATISFACTORY OR	UNSATISFAC	TORY	· .
		3.02	TO +1/32			
	()	3.03	TO $\pm 1/32$	n.		v.
	()	3.04 3.05	TO - 1/32			
	()	3.06 3.07	IN CORRECT PLACES I		CT E	KPANSION DUE TO HEAT
	(<i>)</i>	3.07	Discorn mari no bitor			

		MISOE NO.
PROGRAM METALWORKING		SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 02	HOUSEHOLD EQUIFMENT
	TERMOB NO.	17-038
1.00 CONDITION	e e	~ 4
2.00 PERFORMANCE		
		•

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

· Santa

EXTENT

3.00

PPOGR	AM <u>METALI</u>	WORK ING	<u>.</u>	SHEETMETAL FABRICATION HOUSEHOLD EQUIPMENT
4 9	٠		TERMOB NO.	17-039
1.00	CONDITION			
	() 1.0	1 DIMENSIONED ISOMET: GARDEN HOSE BRACKE	RIC DRAWING OF C	CURVED, WALL MOUNTING,
1. 2	() 1.0	2 BASIC METALWORKER'	S HAND TOOLS (TA	ABLE T-3)
	() 1.0	3 SLIP ROLLS 4 THICK EDGE ROTARY	MACHINE	
	() 1.0	5 HAND CORNICE BRAKE		
	() 1.0	6 DRILL PRESS	TRON	ķ
	() 1.0	7 18-GAUGE GALVANIZE 8 3/16 x 3/4 HOT ROL	L FLAT BAR	
	() 1.0	9 ASSORTED BOLTS & N	UTS	
2.00	GENERAL () 2.0	STATEMENT OF PERFORMA 1 FABRICATE A GARDEN DRAWING EMPLOYING	HOSE BRACKET AS	S SPECIFIED IN
*	() 2 0	2 COMPUTE CUTTING SI	. ZF	
	() 2.0	3 LAY OUT FOR BENDS,	BEADS, AND NOT	CHES
\-	() 2.0	4 CUT OUT AND NOTCH		
	() 2.0			
.⊋	() 2.0		R HOLES AND BEN	DS
	() 2.0	_		•
	() 2.0			
	()			t ·
3:00	EXTENT			
				CHI MING OUMGOME
	GENERAL () 3.0	ANCES TO APPROVAL	ET FABRICATED WI OF BOARD OF EXP THREE AND ONE-HA	THIN DRAWING TOLER- ERT RATERS. TO BE LF HOURS WITH EACH
		OPERATION JUDGED A	AS SATISFACTORY	OR UNSATISFACTORY

ERIC

Full Text Provided by ERIC

TO +1/32 TO +1/32 TO +1/32 TO +1/32 TO +1/32 TO +1/32

3.02 3.03 3.04 3.05 3.06 3.07

MISOE NO.

```
() 1.02 BASIC METALWORKER'S HAND TOOLS (TABLE T-3)
() 1.03 SLIP ROLLS
() 1.04 THICK EDGE ROTARY MACHINE
() 1.05 HAND CORNICE BRAKE
() 1.06 DRILL PRESS
() 1.07 18-GAUGE GALVANIZED IRON
() 1.08 3/16 x 3/4 HOT ROLL FLAT BAR
() 1.09 ASSORTED BOLTS & NUTS
```

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

() 2.01 FABRICATE A GARDEN HOSE BRACKET AS SPECIFIED IN DRAWING EMPLOYING THE FOLLOWING PROCEDURE:

```
() 2.02 COMPUTE CUTTING SIZE
() 2.03 LAY OUT FOR BENDS, BEADS, AND NOTCHES
() 2.04 CUT OUT AND NOTCH
() 2.05 TURN BEADS
() 2.06 BEND FLANGE
() 2.07 LAYOUT FLAT BAR FOR HOLES AND BENDS
() 2.08 DRILL
() 2.09 BEND
() 2.10 ASSEMBLE
```

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 GARDEN HOSE BRACKET FABRICATED WITHIN DRAWING TOLER-ANCES TO APPROVAL OF BOARD OF EXPERT RATECS. TO BE COMPLETED WITHIN THREE AND ONE-HALF HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

```
() 3.02 TO \pm 1/32

() 3.03 TO \pm 1/32

() 3.04 TO \pm 1/32

() 3.05 TO \pm 1/32

() 3.06 TO \pm 1/32

() 3.07 TO \pm 1/32

() 3.08 TO \pm 1/32

() 3.09 TO \pm 1/32

() 3.09 TO \pm 1/32

() 3.10 FLAT BAR PROPERLY AND FIRMLY ALIGNED TO BODY
```



	*.	MIDOD NO.
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 02	HOUSEHOLD EQUIPMENT
	TERMOB NO.	17-039
		•
1 00 000077701		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

MISOE	NO				.*	
PROGRA	AM <u>ME</u>	TALWC	DRKING	DIVISION	04	SHEETMETAL FABRICATION
	:			UNIT	02	HOUSEHOLD EQUIPMENT
	, .			TERMOB N	O	17-040
*		-				
1.00	CONDIT	ION		• '		
	() 1	.01 ,	DIMENSIONED ISOMETRIC STOOL WITH FLOOR TO F	DRAWING	OF W	ROUGHT IRON STEP
×	() 1	03	BASIC METALWORKER'S F GAS WELDING EQUIPMENT	IAND TOOLS	5 (TA	ABLE T-3)
	() 1	.05	ANGLE IRON HOT ROLL ROD PERFORATED STEEL			
			SPOT WELDING MACHINE			
2.00	PERFOR	MANCI	3			
,	GENERA	L ST	ATEMENT OF PERFORMANCE	E AND RESU	JLTI	NG OUTCOME
-		2.01	FABRICATE A WROUGHT DRAWING EMPLOYING THE	RON STEP	STO	L AS SPECIFIED IN
· '	• •	2.02	COMPUTE CUTTING SIZE			
	() 2		WELD ANGLE IRON	STEEL TO	ANG	LE IRON FRAME
	() 2	2.06		\$		
3.00	EXTENT	t.				
* .	GENERA	AI. ST	ATEMENT OF EXTENT AND	EXTENT O	F RES	SULTING OUTCOME
v_{φ}	·	3.01	WROUGHT IRON STEP STO TOLERANCES TO APPROVE	OOL FABRI	CATE	D WITHIN DRAWING
ž			BE COMPLETED WITHIN DUDGED AS SATISFACTO	FOUR HOUR	S WI	TH EACH OPERATION
	()		TO <u>+</u> 1/32			
		3.04	TO $\frac{1}{1}$ 32 WELD SMOOTH WITH PRO	PER PENET	RATI	ON -
*	() :	3.05	PROPERLY ALIGNED WIT WELD SMOOTH WITH PRO	PER PENET	RATI	MATERIAL ON
	• •	3.07	ALL WELDS AND SHARP	EDGES SMO	ОТН	
			4			

PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 02	HOUSEHOLD EQUIPMENT
*	TERMOB NO.	17-040
		, , , , , , , , , , , , , , , , , , ,
1.00 CONDITION	و انت. محمد	

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



MISOE	NO				A STATE OF THE STA
PROGR	AM NA	METALWO	ORKING	DIVISION 04	SHEETMETAL FARRICATION
				UNIT 02	HOUSEHOLD EQUIPMENT
	-	~		TERMOB NO.	17-041
1.00	CONDI	TION	•		
ماند	()		DIMENSIONED ISOMET RECTANGULAR MAIL E BASIC METALWORKER	BOX	WALL TYPE TAPERING
	()	1.03 1.04 1.05 1.06	SHEAR SLIP ROLL CORNICE BRAKE DRILL PRESS SPOT WELDING MACHI		
2.00	PERF	ORMANC	E å		<u>.</u>
	GENE:	RAL ST	ATEMENT OF PERFORMATE A MAIL INTO THE FOLLOWING OPER	BOX AS SPECIFIE	ING OUTCOME D IN DRAWING EMPLOYING
	() () () () () ()	2.04 2.05 2.06 2.07 2.08	LAY OUT FOR BENDS, CUT AND NOTCH DRILL BEND FORM SPOT WELD SEAMS INSTALL PIVOT HING	, HOLES, NOTCHE	5
3.00	EXTE	NT			<u>-</u>
	GENE ()	RAL ST	APPROVAL OF BOARD	CATED WITHIN DR OF EXPERT RATE ONE-HALF HOURS	AWING TOLERANCES TO RS. TO BE COMPLETED WITH EACH OPERATION
ERIC		3.02 3.03 3.04 3.05 3.06 3.07 3.08 3.09 3.10	WITHOUT BUCKLING ALIGNED AND OPERA	MATERIAL TING PROPERLY	140

						MISOE NO	
			V				
PROGRA	M METAL	WORKING		DIVISION	04	SHEETMETAL FABRICATIO	N
USOE C	CODE NO(S)	4.,	UNIT	02	HOUSEHOLD EQUIPMENT	
				TERMOB N	0.	17-041	·
1.00	CONDITIO	N					
		÷				-	
			-				
2.00	PERFORMA	NCE				1	
	GENERAL	STATEMENT	OF PERFO	RMANCE AND	RES	ULTING OUTCOME	
			-	•			
		* · · ·					
					,		
			, 44		N.		

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

3.00

EXTENT

MISOE	NO					
PROGRA	AM <u>M</u> E	TALWO	RKING	DIVISIO	N 04	SHEETMETAL FABRICATION
				UNIT	03	PRECISION SHEETMETAL
			·	TERMOB	NO.	17-042
1.00	CONDIT	ION				
	() 1 () 1 () 1 () 1	.02	BLUEPRINT OF CHASSIS ROUND HOLES BASIC METALWORKER'S DRILL PRESS 16-GAUGE STAINLESS S POWER SHEAR PUNCH PRESS DIAL CALIPER	HAND TOO		SERIES OF SQUARE AND
2.00	PERFOR	RMANCE		\$		
٠	GENERA () · 2	2.01	TEMENT OF PERFORMANCE FABRICATE CHASSIS CONTROLLOW	OVER AS S	PECIF	IED IN BLOEDKINI
	()	2.03	COMPUTE CUTTING SIZE CUT MACHINE ALL HOLES	E	•	
3.00	EXTEN	r				
i		AL STA	ATEMENT OF EXTENT AND CHASSIS COVER IS FAITO APPROVAL OF BOARD PLETED WITHIN FIVE AS SATISFACTORY OR	BRICATED D OF EXPI HOURS WIT	WITH: ERT RA PH EAC	ATERS. TO BE COM- CH OPERATION JUDGED
	()	3.02 3.03 3.04	TO +.005 TO +.005 TO +.005	142		

	•		MISOF NO.	
				•
PROGRAM METALWORKING	DIVISION	04	SHEETMETAL FABRICATIO)N
USOE CODE NO(S)	UNIT	03	PRECISION SHEETMETAL	
	TERMOB NO	•	17-042	
1.00 CONDITION				
,			-	
•				
2.00 PERFORMANCE				•
,				
		220	THE MENT OF THE COMP	
GENERAL STATEMENT OF PER	FORMANCE AND	RES	OLTING OUTCOME	
3.00 EXTENT				

MISOE	NO.					
PROGRAM		METALW	ORKING	DĪVISION	N 04	SHEETMETAL FARRICATION
Ŧ	_			UNIT	03	PRECISION SHEETMETAL
÷				TERMOB 1	NO.	17-043
1.00	CON	DITION			•	
	() / () / ()	1.03 1.04 1.05 1.06	BLUEPRINT OF HAT S ROUND HOLES AND A BASIC METALWORKER' DRILL PRESS 16-GAUGE STAINLESS BRAKES POWER SHEAR FORMING MACHINES	SLOT S HAND TOOL		•
2.00	PER	FORMANC	E			
	GEN ()	ERAL ST	ATEMENT OF PERFORMA FABRICATE HAT SECT PRINT EMPLOYING TH	ION CHANNEL	AS	SPECIFIED IN BLUE-
	()	2.03 2.04 2.05	PUNCH HOLES DRILL HOLES			
3.00	EXT	ENT				
7	GEN (ERAL ST	ATEMENT OF EXTENT A HAT SECTION CHANNE TOLERANCES TO APPR BE COMPLETED WITHI JUDGED AS SATISFAC	L IS FABRIC OVAL OF BOA N FIVE HOUR	ATED RD O RS WI	WITHIN BLUEPRINT OF EXPERT RATERS. TO TH EACH OPERATION
	()()()()	3.02 3.03 3.04 3.05 3.06 3.07	TO +.001 TO +.001 TO +.005 TO +.001 TO +.005 TO +1/40			



		MISOE NO.
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 03	PRECISION SHEETMETAL
	TERMOB NO.	17-043
1.00 CONDITION	·	

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



, 100 O 1 0	AM META	LWOR	KING	DIVISION 04	SHEETMETAL FABRICATION
				UNIT 94	HEATING AND VENTILATIO
t				TERMOB NO.	17-044
1.00	CONDITI	ON		Ų.	
	() 1.	.01	PATTERN OF CURVED OFF PROFILE		
	() 1.	.02	BLUEPRINT OF CURVED OF PROFILE		
	() 1.	.03	BASIC METALWORKER'S H	AND TOOLS (TABLE T-3)
	() 1.	.04	BRAKES		
	() 1.	.05	ROLL FORMING MACHINE	ŧ	
			POWER SHEAR		1
			BURRING MACHINE	\$	
	() 1.	.08	BENCH STAKES		
	() 1.	.09	TURNING MACHINE		
	() 1.	.10	GROOVER		
	() 1.	.11	22-GAUGE GALVANIZED I	RON	
	() 1.	.12	LOCK FORMING MACHINE		
			0		
		L ST	ATEMENT OF PERFORMANCE FABRICATE A CURVED OF PRINT EMPLOYING THE F	FSET DUCT A	S SEECTLIED IN RPOF-
	() 2	.01	PRINT EMPLOYING THE F	FSET DUCT A	S SEECTLIED IN RPOF-
	() 2	.02	PRINT EMPLOYING THE F	FSET DUCT A	S SEECTLIED IN RPOF.
	() 2	.02	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT	FSET DUCT A	S SEECTLIED IN BROK-
	() 2 () 2 () 2	.01 .02 .03 .04	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND	FSET DUCT A	S SEECTLIED IN BROK-
	() 2 () 2 () 2 () 2 () 2	.01 .02 .03 .04	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE	FSET DUCT A	S SEECTLIED IN RPOF.
	() 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE	FSET DUCT A	S SEECTLIED IN RPOF.
	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05 .06	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE	FSET DUCT A	S SEECTLIED IN BLOE-
	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE ASSEMBLE	FSET DUCT A	S SEECTHIED IN BLOE-
3.00	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05 .06	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE ASSEMBLE	FSET DUCT A	S SEECTHIED IN BUOF-
3.00	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05 .06 .07	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE ASSEMBLE FINISH	FSET DUCT A	S SPECIFIED IN BLUE- ERATIONS:
3.00	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05 .06 .07	FABRICATE A CURVED OF PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE ASSEMBLE FINISH ATEMENT OF EXTENT AND CURVED OFFSET DUCT IS	EXTENT OF R	ESULTING OUTCOME WITHIN BLUEPRINT
3.00	() 2 () 2 () 2 () 2 () 2 () 2 () 2	.02 .03 .04 .05 .06 .07	PRINT EMPLOYING THE F COMPUTE CUTTING SIZE CUT BEND SHAPE CURVE ASSEMBLE FINISH	EXTENT OF RESTAUR OF BOARD	ESULTING OUTCOME WITHIN BLUEPRINT OF EXPERT RATERS. TO

JUDGED AS SATISFACTORY OR UNSATISFACTORY

ERIC Full fext Provided by ERIC

() 3.02 TO $\pm 1/32$ () 3.03 TO $\pm 1/32$ () 3.04 TO $\pm 1/32$

() 3.04 TO $\pm 1/32$ () 3.05 EDGES STRAIGHT WITH NO BOW

()	1.02	BLUEPRINT OF CURVED OFFSET DUCT HAVING RECTANGULAR
		PROFILE
()	1.03	BASIC METALWORKER'S HAND TOOLS (TABLE T-3)
()	1.04	BRAKES
()	1.05	ROLL FORMING MACHINE
.()	1.06	POWER SHEAR
()	1.07	BURRING MACHINE
()	1.08	BENCH STAKES
()	1.09	TURNING MACHINE
()	1.10	GROOVER
()	1.11	22-GAUGE GALVANIZED IRON
()	1.12	LOCK FORMING MACHINE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

() 2.01 FABRICATE A CURVED OFFSET DUCT AS SPECIFIED IN BLUE-PRINT EMPLOYING THE FOLLOWING OPERATIONS:

() 2.02 COMPUTE CUTTING SIZE () 2.03 CUT () 2.04 BEND () 2.05 SHAPE () 2.06 CURVE () 2.07 ASSEMBLE () 2.08 FINISH

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

() 3.01 CURVED OFFSET DUCT IS FABRICATED WITHIN BLUEPRINT

TOLERANCES TO APPROVAL OF BOARD OF EXPERT RATERS. TO

BE COMPLETED WITHIN FIVE HOURS WITH EACH OPERATION

JUDGED AS SATISFACTORY OR UNSATISFACTORY

() 3.02 TO +1/32 () 3.03 TO +1/32 () 3.04 TO +1/32 () 3.05 EDGES STRAIGHT WITH NO BOW () 3.06 EDGES STRAIGHT WITH NO BOW () 3.07 TO +1/32 () 3.08 ALL SHARP EDGES SMOOTH

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		MISON NO.
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 04	HEATING AND VENTILATION
	TERMOB NO.	17-044
	*	
1.00 CONDITION		

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



PROGRA	MN	METALW	ORKING		DIVISIO	ON 04	SHEETM	ETAL F	PABRICA	IOI
					UNIT	04	HEATIN	G AND	VENTIL	TI
-					TERMOB	No.	17-045			
				λ.				•		
1.00	CONDI	TION							,	
	()	1.02 1.03 1.04 1.05 1.06 1.07 1.08 1.09 1.10 1.11	ELBOW EDGIN	OF DUCT WILL WORKER'S CHINE CS CHINE ACHINE	TH SQUAR HAND TOO	E TO	SQUARE	TAPER		
	()	1.13	22-GAUGE GA	ALVANIZED	IRON					
2.00	PERF	ORMANC	E				o		к	
- -						 -		*		_
· 1										
	GENE		ATEMENT OF P	ERFORMANC	E AND RE	SULTI	NG OUTC	OME TO A C	CDECTET.	ED.
	()	RAL ST		SQUARE 1	O SQUARE	TAPE	RED DUC	T AS	SPECIFI	ED
	() () () () ()		FABRICATE A	A SQUARE 1	O SQUARE	TAPE	RED DUC	T AS	SPECIFI	ED
3.00	() () () () ()	2.02 2.03 2.04 2.05 2.06 2.07	FABRICATE A IN BLUEPRIM COMPUTE CUT CUT BEND SHAPE ASSEMBLE	A SQUARE 1	O SQUARE	TAPE	RED DUC	T AS	SPECIFI	ED
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07	FABRICATE A IN BLUEPRIM COMPUTE CUT CUT BEND SHAPE ASSEMBLE	A SQUARE 1	O SQUARE	TAPE	RED DUC	T AS	SPECIFI	ED
3.00	() () () () ()	2.01 2.02 2.03 2.04 2.05 2.06 2.07	FABRICATE A IN BLUEPRIM COMPUTE CUT CUT BEND SHAPE ASSEMBLE FINISH	A SQUARE TO THE MPLOY I	O SQUARE ING THE F	OLLOW OF RE	SULTING	T AS SERATION	OME	ED
Γ	() () () () ()	2.01 2.02 2.03 2.04 2.05 2.06 2.07	COMPUTE CUT CUT BEND SHAPE ASSEMBLE FINISH ATEMENT OF E SQUARE TO S BLUEPRINT	EXTENT AND COLUMN TO BE COMPI	D EXTENT PERED DUC TO APPELETED WIT	OF RECT IS	SULTING FABRICA OF BOAR	T AS S RATION OUTCO	OME ITHIN EXFERT TH EACH	

		MISOE NO
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 04	HEATING AND VENTILATION
	TERMOB NO.	17-045
•		
1 00 CONDITTON		ů.

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

			DIVISION 04	SHEETMETAL FABRICATION
PROGRA	AM METALWQ	RKING		
			UNIT 04	HEATING AND VENTILATION
			TERMOB NO.	17-046
1.00	CONDITION			d.
•	() 1.02 () 1.03 () 1.04 () 1.05 () 1.06	PATTERN OF ONE-PIBLUEPRINT OF ONE-BASIC METALWORKER BRAKES POWER SHEAR BENCH STAKES	PIECE DUCT	ABLE T-3)
	() 1.08	BAR FOLDER GROOVER 22-GAUGE GALVANI	ZED IRON	
2.00	PERFORMANC	Ç E		<u>-</u>
'				
-	GENERAL ST	FABRICATE A ONE-	PIECE DUCT AS SPI	ECIFIED IN BLUEPRING
	() 2.03 () 2.04	COMPUTE CUTTING S CUT BEND SHAPE ASSEMBLE FINISH	SIZE	
3.00	() 2.03 () 2.04 () 2.05 () 2.06	CUT BEND SHAPE ASSEMBLE	SIZE	
3.00	() 2.03 () 2.04 () 2.05 () 2.06 () 2.07 EXTENT	CUT BEND SHAPE ASSEMBLE FINISH CATEMENT OF EXTENT ONE-PIECE DUCT I ANCES TO APPROVA	AND EXTENT OF RIS FABRICATED WITH	HIN BLUEPRINT TOLER- PERT RATERS. TO BE EACH OPERATION JUDGED

		MISOE NO.
PROGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 04	HEATING AND VENTILATION
	TERMOB NO.	17-046
1.00 CONDITION		
•	٠	
¥		
2.00 PERFORMANCE		
GENERAL STATEMENT OF PER	RFORMANCE AND RES	SULTING OUTCOME
F		

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME



3.00 EXTENT

MISOE	NO.			L		
PROGRA	AM MI	ETALWOI	RKING	DIVISION	04	SHEETMETAL FABRICATION
				UNIT	04	HEATING AND VENTILATION
				TERMOB NO	٥.	17-047
			e e e e e e e e e e e e e e e e e e e			
1.00	COND	ITION				
_	() () () ()	1.02 1.03 1.04 1.05 1.06 1.07	PATTERN OF TWISTED, (BLUEPRINT OF TWISTED BASIC METALWORKER'S BRAKES POWER SHEAR BENCH STAKES BAR FOLDER GROOVER 22-GAUGE GALVANIZED	, QUARTER HAND TOOLS	TURN	RECTANGULAR DUCT
2.00	PERF	ORMANC	E			
	GENE	RAL ST 2.01	ATEMENT OF PERFORMANC FABRICATE A TWISTED, SPECIFIED IN BLUEPRI TIONS:	OHARTER T	וויRN	RECTANGULAR DUCT AS I
	() () () () ()	2.03 2.04 2.05 2.06				
3.00	ЕХТІ	ENT				
	GENI	ERAL ST	TATEMENT OF EXTENT AND TWISTED, QUARTER TURN WITHIN BLUEPRINT TOI EXPERT RATERS. TO EACH OPERATION JUDGE TORY	RN RECTANGU LERANCES TO BE COMPLETI	JLAR DAP EDW	PROVAL OF BOARD OF
	() () () ()	3.02 3.03 3.04 3.05 3.06 3.07	TO $\pm 1/32$ TO $\pm 1/32$ EDGES STRAIGHT WITH TO $\pm 1/32$			•

	MISOE NO.	
PROGRAM METALWORKING	DIVISION 04 SHEETMETAL FAB	RICATION
USOE CODE NO(S)	UNIT 04 HEATING AND VE	NTILATION
	TERMOB NO. 17-047	
1.00 CONDITION	•	
2.00 PERFORMANCE		
GENERAL STATEMENT OF PE	RESULTING OUTCOME	
\$		
3.00 EXTENT		



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PROGRA	<u> </u>		MING		UNIT		HEATING AND VENTILATION
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	()	1.02	PATTERN OF RIBLUEPRINT OF	RECTANG	JLAR, DO	UBLE	OFFSET DUCT
			BASIC METALWO	ORKER'S	HAND TOO	LS (T	ABLE T-3)
	()	1.05	ROLL FORMING POWER SHEAR	MACHINE			
	()	1.07	BURRING MACH	INE			
			BENCH STAKES BAR FOLDER	N			
3	()	1.10	GROO V ER	UNNTOED.	TDON		
	()	1.11	22-GAUGE GAL	VANIZED	IRON		
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-			ATEMENT OF PE	RECTANGU	LAR, DOU	JBLE (OFFSET DUCT AS SPECIFIE
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	()	2.01 2.02 2.03	FABRICATE A IN BLUEPRINT COMPUTE CUTT	RECTANGU EMPLOYI	LAR, DOU	JBLE (OFFSET DUCT AS SPECIFIE
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3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08	FABRICATE A IN BLUEPRINT COMPUTE CUTT BEND SHAPE CURVE ASSEMBLE FINISH CATEMENT OF EX	EMPLOYI ING SIZE TENT AND DOUBLE	EXTENT	OF R	ESULTING OUTCOME IS FABRICATED WITHIN
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08	CATEMENT OF EXTERS. TO	EMPLOYI ING SIZE TENT ANI DOUBLE LERANCES BE COMPI	LAR, DOUNG THE FOR STATE OF STO APPLICATED WITH	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT FIVE HOURS WITH EACH
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08	CATEMENT OF EXTERS. TO	EMPLOYI ING SIZE TENT ANI DOUBLE LERANCES BE COMPI	LAR, DOUNG THE FOR STATE OF STO APPLICATED WITH	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08	CATEMENT OF EXTERES. TO OPERATION JU	EMPLOYI ING SIZE TENT ANI DOUBLE LERANCES BE COMPI	LAR, DOUNG THE FOR STATE OF STO APPLICATED WITH	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT FIVE HOURS WITH EACH
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08	COMPUTE CUTT CUT BEND SHAPE CURVE ASSEMBLE FINISH CATEMENT OF EXTERMENT TO RATERS. TO OPERATION JU TO +1/32 TO +1/32	EMPLOYI ING SIZE TENT ANI DOUBLE LERANCES BE COMPI	LAR, DOUNG THE FOR STATE OF STO APPLICATED WITH	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT FIVE HOURS WITH EACH
3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08 3.01	COMPUTE CUTT CUT BEND SHAPE CURVE ASSEMBLE FINISH CATEMENT OF EXTERMENT TO RATERS. TO OPERATION JU TO +1/32 TO +1/32 TO +1/32 TO +1/32	EMPLOYI ING SIZE TENT AND DOUBLE DLERANCES BE COMPI DOGED AS	EXTENT OFFSET S TO APPE	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT FIVE HOURS WITH EACH
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3.00	() () () () () ()	2.02 2.03 2.04 2.05 2.06 2.07 2.08 3.01 3.01	COMPUTE CUTT CUT BEND SHAPE CURVE ASSEMBLE FINISH CATEMENT OF EX RECTANGULAR, BLUEPRINT TO RATERS. TO OPERATION JU TO +1/32 TO +1/32 TO +1/32 EDGES STRAIC EDGES STRAIC	EMPLOYI ING SIZE ING SIZE TENT AND DOUBLE LERANCES BE COMPI JDGED AS GHT WITH	DEXTENT OFFSET IS STO APPI SETED WI'S SATISFA NO BOW NO BOW	OF ROVAL	ESULTING OUTCOME IS FABRICATED WITHIN OF BOARD OF EXPERT FIVE HOURS WITH EACH

		MISOE NO.
PRCGRAM METALWORKING	DIVISION 04	SHEETMETAL FABRICATION
USOE CODE NO(S)	UNIT 04	HEATING AND VENTILATION
	TERMOB NO.	17-048
		
1.00 CONDITION		• • • • • • • • • • • • • • • • • • •

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT



TABLE T-3

BASIC METALWORKER'S HAND TOOLS

SCRATCH AWLS

DIVIDERS

STEEL SQUARES

TRAMMEL POINTS

STEEL RULES

PUNCHES

HAND GROOVES

RIVET SET

CHISELS

HAMMERS

SNIPS

PLIERS

HAND SEAMER (TONGS)

SOLDERING IRONS

HACKSAWS

FILES

PORTABLE DRILL

MEASURING TAPE

SAFETY GLASSES

SET OF DRILL BITS

TABLE T-3A

DRAFTING TOOLS

DRAWING BOARD

COMPASSES

DIVIDERS

PENCILS

EXTENSION BAR

RULING PEN

TEE SQUARE

TRIANGLES

RULE AND SCALES

DRAWING INK

TAPE

ERASERS

LETTERING PENS

CURVES (REGULAR AND IRREGULAR)

PROTRACTOR

DRAFTING MEDIA (PAPER)

FRENCH CURVE

TABLE T-3B

WELDING HAND TOOLS

WIRE BRUSH

CHIPPING HAMMER

HAMMER

WEDGES

CLAMPS

PLIERS

TONGS

GLOVES

SHIELD

APRON

SAFETY GLASSES

BENCH GRINDER

FLEXIBLE SHAFT GRINDER

TABLE T-3C

OXYGEN-ACETYLENE GAS WELDING EQUIPMENT

CYLINDER OF OXYGEN

CYLINDER OF ACETYLENE

CONNECTING HOSES

REGULATORS

APPARATUS WRENCH

WELDING TIPS

TORCH

SPARK LIGHTER

SAFETY GOGGLES

TIP CLEANER

TABLE T-3D

SOLDERING EQUIPMENT

SOLDERING IRON

SOLDER

FLUX

HEAT SOURCE

SALAMONIAC BLOCK

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SAFETY GLASSES

Table T-4 Additional TERMOB Performance Statements

This form is provided for the addition of TERMOB performance statements to ensure more complete coverage of your program. Please provide a comprehensive performance statement (coded 2.01 on each TERMOB) for each area of deficiency that you have identified.

The performance statement need only be listed identified by the division and unit numbers of the deficient areas; the conditions and extents will be incorporated later.

1.	Division	Performance Statement
	Unit	
2.	Division	Performance Statement
	Unit	
3.	Division	Performance Statement
	Unit	
4.	Division	Performance Statement
	Unit	
5.	Division	Performance Statement
	Unit	
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6.	Division	Performance Statement
	Unit	
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2.	Division	Performance Statement
	Unit	
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3.	Division	Performance Statement
	Unit	
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4.	Division	Performance Statement
	Unit	
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5.	Division	Performance Statement
	Unit	
6.	Division	Performance Statement
~	Unit	
		······································
7.	Division	Parformance Statement
•	Unit	Performance Statement
-		
		·



Table T-4 (Cont'd) Additional TERMOB Performance Statements

This form is provided for the addition of TERMOB performance statements to ensure more complete coverage of your program. Please provide a comprehensive performance statement (coded 2.01 on each TERMOB) for each area of deficiency that you have identified.

The performance statement need only be listed identified by the division and unit numbers of the deficient areas; the conditions and extents will be incorporated later.

8.	Division		Performance	Statement		
3 4	Unit				· 	·
	•					
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9.	Division		Performance	Statement.		
	Unit	Ü	,			7 <u>. </u>
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10.	Division			Statement_		9
	Unit	`~~a				
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11.	Division	e* .		Statement_		د.
	Unit					
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12.	Division			Statement_		
	Unit					
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13.	Division		Performance	Statement	ه در	
	Unit		u 			
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	Unit	
9.	Division Unit	Performance Statement
10.	Division	Performance Statement
•	Division	Performance Statement
	Division	Performance Statement
13.	Division	Performance Statement
14.	Division	Performance Statement



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17-013	HARD RESURFACE CAST IRON PIECE (RESIST CORROSION, ELECTRIC ARC)	T-34
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